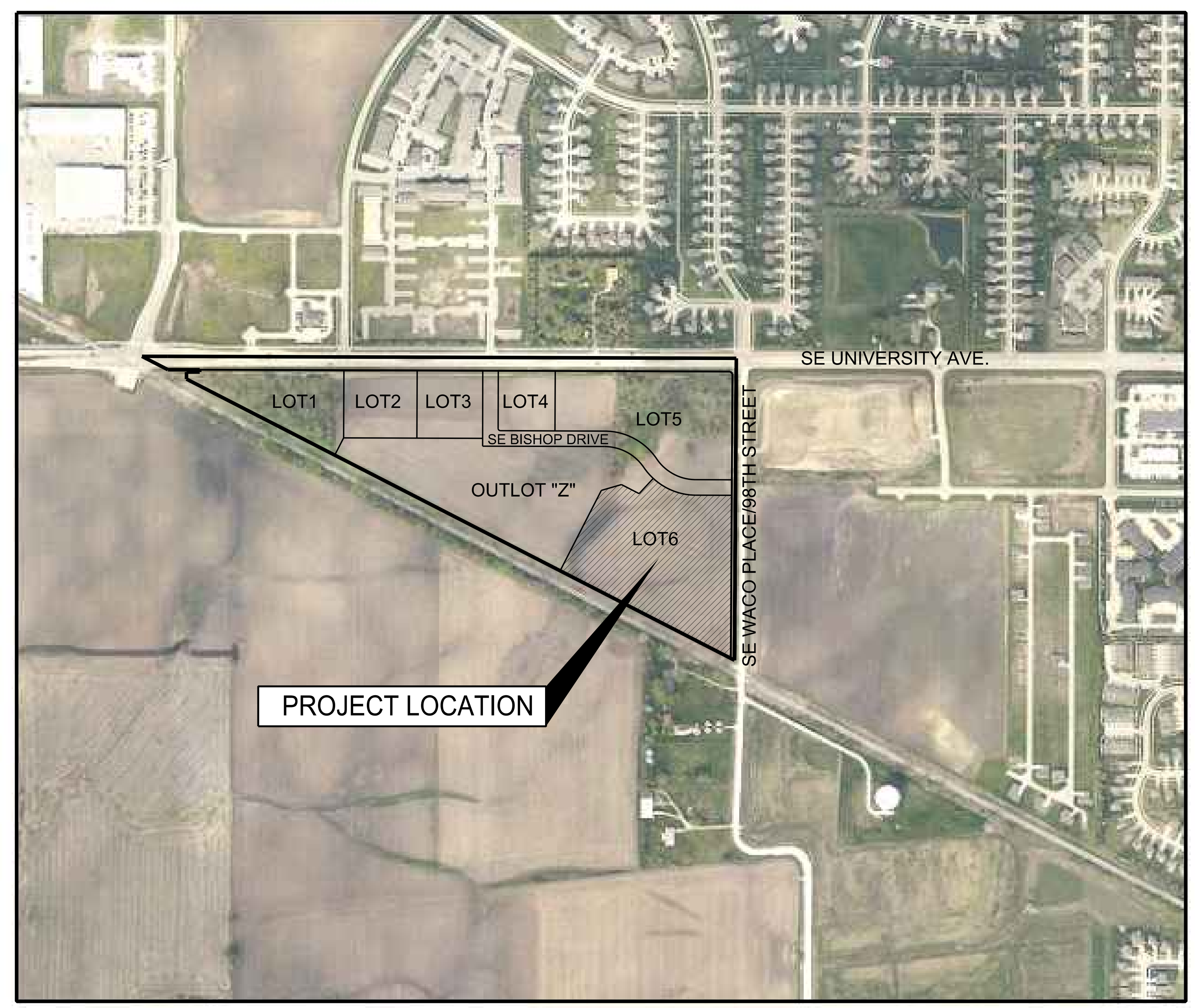
SITE PLAN

FOR

COVE AT KETTLESTONE APARTMENTS

MULTI - FAMILY RESIDENTIAL DEVELOPMENT

CITY OF WAUKEE, DALLAS COUNTY, IOWA



VICINITY MAP

1"=500'

OWNER/DEVELOPER
BRICKTOWNE WAUKEE, LLC
4611 MORTENSEN ROAD, SUITE 106
AMES, IA 50014
CONTACT: TODD PETERSEN

PROJECT MANAGER
BRICKTOWNE WAUKEE, LLC
4611 MORTENSEN ROAD, SUITE 106
AMES, IA 50014
CONTACT: TODD PETERSEN
PHONE: 233-2752

INDEX OF SHEETS

STATE OF IOWA
CLAY R. SCHNECKLOTH
LANDSCAPE ARCHITECT NO. 512
PROFESSIONAL LANDSCAPE ARCHITECT

License Expires: June 30, 2017

I hereby certify that the portion of this technical submission described below was prepared by me or under my direct supervision and responsible charge. I am a duly licensed Professional Landscape Architect under the laws of the State of Iowa.

Clay R. Schneckloth, ASLA Date

License Number 512

Pages or sheets covered by this seal:
Sheet 8

LICENSED PROFESSIONAL ENGINEER
ERIC D. CANNON
18954
IOWA

I hereby certify that this engineering document was prepared by me or under my direct personal supervision and that I am a duly licensed Professional Engineer under the laws of the State of Iowa.

Eric D. Cannon, P.E. Date

License Number 18954

My License Renewal Date is December 31, 2017

Pages or sheets covered by this seal:
Sheets 1-7, 9-10

MARK	REVISION	DATE	BY
2	REVISED AS PER CITY COMMENTS	01/28/16	JWM
1	REVISED AS PER CITY COMMENTS	12/23/15	JWM

Engineer: EDC Checked By: EDC Scale: 1"= 500'
Technician: JWM Date: 11-18-15 Field Bk: Pg:

Project No: 115.0886 Sheet 1 of 10

COVE AT KETTLESTONE APARTMENTS

TITLE SHEET WAUKEE, IA

SNYDER & ASSOCIATES, INC.

2727 S.W. SNYDER BLVD.
ANKENY, IOWA 50023
515-964-2020 | www.snyder-associates.com

Project No: 115.0886

Sheet 1 of 10

LEGEND

Features	Existing	Proposed
Spot Elevation	93.0	93.0
Contour Elevation	93	93
Fence (Barbed, Field, Hog)	x	
Fence (Chain Link)		
Fence (Wood)		
Fence (Silt)		
Tree Line		
Tree Stump		
Deciduous Tree or Shrub		
Coniferous Tree or Shrub		
Communication	C(*)	C
Overhead Communication	OC(*)	OC
Fiber Optic	FO(*)	FO
Underground Electric	E(*)	E
Overhead Electric	OE(*)	OE
Gas Main with Size	4" G(*)	4" G
High Pressure Gas Main with Size	4" HPG(*)	4" HPG
Water Main with Size	8" W(*)	8" W
Sanitary Sewer with Size	8" S(*)	8" S
Duct Bank	DUCT(*)	
Test Hole Location for SUE w/ID		

(*) Denotes the survey quality service level for utilities

Features	Existing	Proposed
Sanitary Manhole		
Storm Sewer with Size	12" ST	12" ST
Storm Manhole		
Single Storm Sewer Intake		
Double Storm Sewer Intake		
Fire Hydrant		
Fire Hydrant on Building		
Water Main Valve		
Water Service Valve		
Well		
Utility Pole		
Guy Anchor		
Utility Pole with Light		
Utility Pole with Transformer		
Street Light		
Yard Light		
Electric Box	EB	
Electric Transformer		
Traffic Sign		
Communication Pedestal		
Communication Manhole		
Communication Handhole		
Fiber Optic Manhole		
Fiber Optic Handhole		
Gas Valve		
Gas Manhole		
Gas Apparatus		
Fence Post or Guard Post		
Underground Storage Tank		
Above Ground Storage Tank		
Sign		
Satellite Dish		
Mailbox		
Soil Boring		

UTILITY CONTACT INFORMATION

UTILITY CONTACT FOR MAPPING INFORMATION SHOWN AS RECEIVED FROM THE IOWA ONE CALL DESIGN REQUEST SYSTEM, TICKET NUMBER 551501715.

F01	HICKORY TECH Joni McCabe 507-387-1770 Joni.McCabe@HickoryTech.com
C-2	IOWA NETWORK SERVICES Jeff Klocko 515-830-0445 jeff@netins.com
OE/E	MIDAMER-ELEC Craig Ranfeld 515-252-6632 MECDSMDesignLocates@midamerican.com
C-2	WINSTREAM MCLEOD JOEL SCHROEDER 800-289-1901 Joel.Schroeder@windstream.com
CLEAR	MEDIACOM COMMUNICATIONS CORP Paul May 515-246-2252 pmay@mediacomcc.com
C-1	CENTURYLINK Tom Sturmer 303-664-8090 Thomas.sturmer@centurylink.com
W-2	WAUKEE, CITY OF Tim Royer 515-978-7920 Contact Email : troyer@waukee.org
NO RESPONSE	NEXGEN INTEGRATED COMMUNICATIONS Gary Reimers 515-369-9000 Gary@nexgencom.com
GAS	WAUKEE, CITY OF Tim Royer 515-978-7920 Contact Email : troyer@waukee.org

IOWA ONE CALL
1-800-292-8989
www.iowaonecall.com

UTILITY QUALITY SERVICE LEVELS

QUALITY LEVELS OF UTILITIES ARE SHOWN IN THE PARENTHESES WITH THE UTILITY TYPE AND WHEN APPLICABLE, SIZE. THE QUALITY LEVELS ARE BASED ON THE CI/ ASCE 38-02 STANDARD.

QUALITY LEVEL (D) INFORMATION IS DERIVED FROM EXISTING UTILITY RECORDS OR ORAL RECOLLECTIONS.

QUALITY LEVEL (C) INFORMATION IS OBTAINED BY SURVEYING AND PLOTTING VISIBLE ABOVE-GROUND UTILITY FEATURES AND USING PROFESSIONAL JUDGMENT IN CORRELATING THIS INFORMATION WITH QUALITY D INFORMATION.

QUALITY LEVEL (B) INFORMATION IS OBTAINED THROUGH THE APPLICATION OF APPROPRIATE SURFACE GEOPHYSICAL METHODS TO DETERMINE THE EXISTENCE AND APPROXIMATE HORIZONTAL POSITION OF SUBSURFACE UTILITIES.

QUALITY LEVEL (A) IS HORIZONTAL AND VERTICAL POSITION OF UNDERGROUND UTILITIES OBTAINED BY ACTUAL EXPOSURE OR VERIFICATION OF PREVIOUSLY EXPOSED SUBSURFACE UTILITIES, AS WELL AS THE TYPE, SIZE, CONDITION, MATERIAL, AND OTHER CHARACTERISTICS.

UTILITY WARNING

THE UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND/OR RECORDS OBTAINED. THE SURVEYOR MAKES NO GUARANTEE THAT THE UTILITIES OR SUBSURFACE FEATURES SHOWN COMPRISE ALL SUCH ITEMS IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UTILITIES OR SUBSURFACE FEATURES SHOWN ARE IN THE EXACT LOCATION INDICATED EXCEPT WHERE NOTED AS QUALITY LEVEL A.

BENCHMARKS

WEST DES MOINES DATUM
IARTN DERIVED - US SURVEY FEET

CONVERSION TO NORTH AMERICAN VERTICAL DATUM OF 1988 = +774.01

BM93 ELEV=272.57 (1046.58 WAUKEE DATUM)
STANDARD CITY OF WEST DES MOINES BENCHMARK, EAST SIDE OF WACO PL, 147' SOUTH OF CENTERLINE OF SE UNIVERSITY AVE.

BM1 ELEV=281.745 (1055.755 WAUKEE DATUM)
BURY BOLT ON WATROUS HYDRANT, NORTH OF ENTRANCE TO WATER TOWER ON EAST SIDE OF WACO PL, SOUTH OF RR TRACKS.

BM2 ELEV=287.289 (1061.299 WAUKEE DATUM)
BURY BOLT ON YELLOW HYDRANT ON NORTH SIDE OF UNIVERSITY AVE, EAST OF WINHALL APARTMENTS, 7' EAST OF STREET LIGHT.

BM3 ELEV=284.334 (1058.344 WAUKEE DATUM)
NW UPPER BOLT ON YELLOW HYDRANT ON NORTH SIDE OF UNIVERSITY AVE, WEST OF PEOPLE'S BANK.

CONTROL POINTS

IOWA STATE PLANE SOUTH COORDINATE SYSTEM
IARTN DERIVED - US SURVEY FEET

CP2 N=581926.84 E=1546506.45
SET 1/2" REBAR WITH RED PLASTIC CAP ON NORTH SIDE OF FIELD ENTRANCE, NORTH OF RR TRACKS, ON EAST SIDE OF WACO PLACE, 10' EAST OF EDGE OF ROAD.

CP3 N=582329.84 E=1546516.75
SET 1/2" REBAR WITH RED PLASTIC CAP AT TOP OF BANK, EAST SIDE OF WACO PLACE, 5' SOUTH OF 3RD POWER POLE NORTH OF RR TRACKS.

CP4 N=582768.4 E=1546447.64
SET CUT "X" AT NE CORNER OF CONCRETE PAD OF WATER PUMP STATION ON WEST SIDE OF WACO PLACE, NW OF LARGE POLE WITH ANTENNA.

CP5 N=583316.05 E=1546598.58
SET CUT "X" IN CENTER OF SIDEWALK, NORTH SIDE OF UNIVERSITY, EAST OF WACO PLACE, NORTH OF STREET LIGHT.

CP8 N=583274.75 E=1545387.19
SET CUT "X" ON WEST END OF CENTER ISLAND ON UNIVERSITY AVE, EAST OF ENTRANCE TO WINHALL APARTMENTS.

CP9 N=583276.66 E=1544730.94
SET CUT "X" ON WEST END OF CENTER ISLAND ON UNIVERSITY AVE, EAST OF SE BRICK DRIVE.

CP10 N=583274.48 E=1543827.85
SET CUT "X" ON WEST END OF CENTER ISLAND ON UNIVERSITY AVE, EAST OF ALICE'S ROAD.

CP13 N=582615.07 E=1545099.92
SET 1/2" REBAR WITH RED PLASTIC CAP APPROXIMATLY 55' NE OF RR TRACKS, 17' NE OF 6TH POWER POLE NW OF 98TH STREET.

GENERAL NOTES

A. NOTIFY UTILITY PROVIDERS PRIOR TO BEGINNING ANY CONSTRUCTION ACTIVITIES AND COORDINATE WITH UTILITY PROVIDERS AS NECESSARY DURING CONSTRUCTION. CONTRACTOR IS RESPONSIBLE FOR DETERMINING EXISTENCE, EXACT LOCATION, AND DEPTH OF ALL UTILITIES. PROTECT ALL UTILITY LINES AND STRUCTURES NOT SHOWN FOR REMOVAL OR MODIFICATION. ANY DAMAGES TO UTILITY ITEMS NOT SHOWN FOR REMOVAL OR MODIFICATION SHALL BE REPAIRED TO THE UTILITY OWNER'S SPECIFICATIONS AT THE CONTRACTOR'S EXPENSE.

B. CONSTRUCTION OF ALL STREET AND UTILITY IMPROVEMENTS SHALL CONFORM TO THE WAUKEE STANDARD SPECIFICATIONS FOR PUBLIC IMPROVEMENTS, STATEWIDE URBAN DESIGN AND SPECIFICATIONS AND THE SOILS REPORTS PREPARED BY OTHERS.

C. LENGTH OF UTILITIES SHOWN ON PLANS ARE DIMENSIONED FROM CENTERLINE OF STRUCTURE TO CENTERLINE OF STRUCTURE.

D. ALL TRAFFIC CONTROL SHALL BE PROVIDED IN ACCORDANCE WITH REQUIREMENTS SET FORTH IN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). WHEN CONSTRUCTION ACTIVITIES OBSTRUCT PORTIONS OF THE ROADWAY, FLAGGERS SHALL BE PROVIDED. FLAGGERS SHALL CONFORM TO THE MUTCD IN APPEARANCE, EQUIPMENT AND ACTIONS. THE CONTRACTOR SHALL NOTIFY THE CITY OF WAUKEE AT LEAST ONE WEEK PRIOR TO ANY ANTICIPATED LANE CLOSURE.

E. NOTIFY OWNER, ENGINEER, CITY OF WAUKEE AT LEAST 48 HOURS PRIOR TO BEGINNING WORK. CONTRACTOR SHALL ALSO NOTIFY THE CITY OF WAUKEE AT LEAST 48 HOURS PRIOR TO ANY PLANNED WEEKEND OR HOLIDAY WORK.

F. CONSTRUCT MANHOLES AND APPURTENANCES AS WORK PROGRESSES. BACKFILL WITH SUITABLE MATERIAL AND COMPACT TO 95% MAXIMUM DENSITY.

G. IN THE EVENT OF A DISCREPANCY BETWEEN THE QUANTITY ESTIMATES AND THE DETAILED PLANS, THE DETAILED PLANS SHALL GOVERN.

H. ALL FIELD TILES ENCOUNTERED DURING CONSTRUCTION SHALL BE RECONNECTED OR REPAIRED AND NOTED ACCORDINGLY ON THE AS-BUILT DOCUMENTS.

I. DIMENSIONS, BUILDING LOCATION, UTILITIES AND GRADING OF THIS SITE ARE BASED ON AVAILABLE INFORMATION AT THE TIME OF DESIGN. DEVIATIONS MAY BE NECESSARY IN THE FIELD. ANY SUCH CHANGES OR CONFLICTS BETWEEN THIS PLAN AND FIELD CONDITIONS ARE TO BE REPORTED TO THE ARCHITECT/ENGINEER PRIOR TO STARTING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LAYOUT VERIFICATION OF ALL SITE IMPROVEMENTS PRIOR TO CONSTRUCTION. CONTACT CITY OF WAUKEE FOR APPROVAL OF ANY CHANGES AND THAT ANY CHANGES COMPLETED WITHOUT APPROVAL ARE SUBJECT TO REMOVAL IN ORDER TO MEET THE CITY OF WAUKEE STANDARDS.

J. CONTRACTOR TO LOAD AND TRANSPORT ALL MATERIALS CONSIDERED TO BE UNDESIRABLE TO BE INCORPORATED INTO THE PROJECT TO AN APPROVED OFF-SITE WASTE SITE.

K. CONTRACTOR TO STRIP AND STOCKPILE TOPSOIL FROM ALL AREAS TO BE CUT OR FILLED. RESPREAD TO MINIMUM 6" DEPTH TO FINISH GRADES.

L. ALL PROPOSED CONTOURS AND SPOT ELEVATIONS SHOWN ARE FINISHED GRADES AND/OR TOP OF PAVING SLAB (GUTTER), UNLESS OTHERWISE NOTED.

M. THE CONTRACTOR IS RESPONSIBLE FOR CLEANING DIRT AND DEBRIS FROM NEIGHBORING STREETS, DRIVEWAYS, AND SIDEWALKS CAUSED BY CONSTRUCTION ACTIVITIES AT THE END OF EACH WORK DAY AND PRIOR TO A RAIN EVENT.

N. THE ADJUSTMENT OF ANY EXISTING UTILITY APPURTENANCES TO FINAL GRADE IS CONSIDERED INCIDENTAL TO THE SITE WORK.

O. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING EROSION AND SEDIMENT CONTROL MEASURES AS NECESSARY. CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR MAINTAINING ANY EXISTING EROSION CONTROL MEASURES ON SITE AT THE TIME OF CONSTRUCTION. GRADING AND SOIL EROSION CONTROL CODE REQUIREMENTS SHALL BE MET BY CONTRACTOR. A COSESCO PERMIT IS REQUIRED FOR THIS PROJECT.

P. CONTRACTOR TO COORDINATE NATURAL GAS, ELECTRICAL, TELEPHONE AND ANY OTHER FRANCHISE UTILITY SERVICES WITH UTILITY SERVICE PROVIDER, CITY OF WAUKEE, AND THE OWNER PRIOR TO CONSTRUCTION.

Q. IF STORM SEWER CROSSES ABOVE WATER MAIN OR CROSSES LESS THAN 18" BELOW A WATER MAIN THEN STORM SEWER SHALL BE CONSTRUCTED OF REINFORCED CONCRETE WITH A FLEXIBLE O-RING GASKET RATED AT 13 PSIOR GREATER. O-RING GASKET JOINTS SHALL BE INSTALLED ON EACH SIDE OF THE CROSSING UNTILL THE NORMAL DISTANCE FROM THE WATER MAIN TO THE STORM SEWER IS AT LEAST TEN FEET.

R. A PRE-CONSTRUCTION MEETING WITH THE CITY OF WAUKEE WILL BE REQUIRED A MINIMUM OF ONE WEEK PRIOR TO CONSTRUCTION ACTIVITIES BEGINNING.

S. ALL STAKING SHALL BE DONE UNDER THE DIRECTION OF A LICENSED ENGINEER FOR LAND SURVEYING INCLUDING PEDESTRIAN FACILITIES.

T. ANY CHANGES PROPOSED TO THE DRAWINGS DURING CONSTRUCTION SHALL BE APPROVED IN WRITING BY THE CITY OF WAUKEE DEVELOPMENT SERVICES DEPARTMENT PRIOR TO CONSTRUCTION.

U. THE CONTRACTOR IS RESPONSIBLE FOR ANY CHANGES MADE DURING CONSTRUCTION THAT HAVE NOT BEEN GRANTED APPROVAL IN WRITING BY THE CITY OF WAUKEE DEVELOPMENT SERVICES.

V. ALL SANITARY SEWER AND STORM SEWER SHALL BE CLEANED AND TELEVISED PRIOR TO PAVING. THE CITY OF WAUKEE SHALL WITNESS ALL CLEANING AND TELEVISING. COPIES OF THE REPORT AND VIDEO SHALL BE PROVIDED TO THE CITY OF WAUKEE. ALL SANITARY SEWER MANHOLES SHALL BE VACUUM TESTED.

W. ALL CONSTRUCTION TO EXISTING SANITARY MANHOLES SHALL BE CORE DRILL WITH A LINK SEAL.

X. PLACE 3/4" EXPANSION JOINT BETWEEN ALL PCC PAVEMENT/SIDEWALKS AND BUILDINGS. PLACE 1/2" EXPANSION JOINT BETWEEN SIDEWALKS AND PCC PAVEMENT. THE PCC RAMP JOINT LOCATED AT THE BACK OF CURB AND ALL EXPANSION JOINTS SHALL BE SEALED.

Y. AS-BUILTS SHALL BE PROVIDED TO THE WAUKEE ENGINEERING DEPARTMENT INCLUDING ALL UTILITIES AND AS-BUILT GRADES FOR DRAINAGE SWALES, OVERFLOWS, ACCESSIBLE RAMPS AND DETENTION FACILITIES. THE CONTRACTOR SHALL PROVIDE INFORMATION TO THE DESIGN ENGINEER FOR INCLUSION ON THE RECORD AS-BUILT DRAWINGS.

Z. ALL UTILITIES INCLUDING PRIVATE UTILITIES SHALL BE CONSTRUCTED TO THE CITY OF WAUKEE STANDARD SPECIFICATIONS FOR PUBLIC IMPROVEMENTS AND ALL UTILITIES SHALL BE TESTED TO CITY STANDARDS. THE CITY SHALL WITNESS ALL TESTING.

AA. CONSTRUCTION OPERATIONS SHALL PROTECT STORM SEWERS AND DRAINAGE WAYS FROM ALLOWING CONCRETE SLURRY FROM CONCRETE OPERATIONS TO DISCHARGE OFFSITE.

BB. CONTRACTOR SHALL COORDINATE ALL TIE-IN TO UTILITIES WITH THE CITY OF WAUKEE PUBLIC WORKS DEPARTMENT AND CITY OF WAUKEE PUBLIC WORKS SHALL WITNESS ALL TIE-INS.

IMPERVIOUS AREA

237,566 SF

PERVIOUS AREA

164,127 SF

ZONING

PLANNED UNIT DEVELOPMENT / C-1
(COMMUNITY AND HIGHWAY SERVICE COMMERCIAL DISTRICT)
RECORDED IN BOOK 2015 PAGE 9498

GENERAL USE

APARTMENTS

PARKING REQUIREMENTS:

2 SPACES PER TWO BEDROOM OR LARGER UNIT
1 SPACE PER EFFICIENCY OR 1 BEDROOM UNIT
1 SPACE PER 4 UNITS
2 SPACES X 69 UNITS = 138 SPACES
1 SPACE X 147 UNITS = 147 SPACES
216 UNITS / 4 = 54 SPACES
339 SPACES TOTAL REQUIRED
384 SPACES TOTAL PROVIDED
(INCLUDES 31 GARAGE STALLS AND 14 ADA STALLS)

BULK REGULATIONS

DENSITY = 20 DWELLING UNITS/ACRE MAXIMUM
MINIMUM FLOOR AREA = 750 SQUARE FEET PER UNIT(EXCEPT FOR EFFICIENCY AND ONE(1) BEDROOM UNITS CAN BE 600 SQUARE FEET)
LOT WIDTH = 60 FEET MINIMUM(FRONTING A PUBLIC OR PRIVATE STREET)
FRONT YARD = 15 FEET
SIDE YARD = 15 FEET
REAR YARD = 20 FEET
NUMBER OF STORIES = MAXIMUM 4
MINIMUM OPEN SPACE = 15%

POLLUTION PREVENTION NOTES

A. POLLUTION PREVENTION AND EROSION PROTECTION

1. CODE COMPLIANCE: THE CONTRACTOR IS RESPONSIBLE FOR COMPLIANCE WITH ALL POTENTIAL POLLUTION AND SOIL EROSION CONTROL REQUIREMENTS OF THE IOWA CODE, THE IOWA DEPARTMENT OF NATURAL RESOURCES (IDNR) NPDES PERMIT, THE U.S. CLEAN WATER ACT AND ANY LOCAL ORDINANCES. THE CONTRACTOR SHALL TAKE ALL NECESSARY STEPS TO PROTECT AGAINST EROSION AND POLLUTION FROM THIS PROJECT SITE AND ALL OFF-SITE BORROW OR DEPOSIT AREAS DURING PERFORMANCE OR AS A RESULT OF PERFORMANCE.

2. DAMAGE CLAIMS: THE CONTRACTOR WILL HOLD THE OWNER AND ARCHITECT / ENGINEER HARMLESS FROM ANY AND ALL CLAIMS OF ANY TYPE WHATSOEVER RESULTING FROM DAMAGES TO ADJOINING PUBLIC OR PRIVATE PROPERTY, INCLUDING REASONABLE ATTORNEY FEES INCURRED TO OWNER. FURTHER, IF THE CONTRACTOR FAILS TO TAKE NECESSARY STEPS TO PROMPTLY REMOVE EARTH SEDIMENTATION OR DEBRIS WHICH COMES ONTO ADJOINING PUBLIC OR PRIVATE PROPERTY, THE OWNER MAY, BUT NEED NOT, REMOVE SUCH ITEMS AND DEDUCT THE COST THEREOF FROM AMOUNTS DUE TO THE CONTRACTOR.

B. STORM WATER DISCHARGE PERMIT

1. THIS PROJECT REQUIRES COVERAGE UNDER THE NPDES GENERAL PERMIT NO. 2 FOR STORM WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITIES FROM THE IDNR, AS REQUIRED BY THE ENVIRONMENTAL PROTECTION AGENCY (EPA). THE GENERAL CONTRACTOR AND ALL SUBCONTRACTORS ARE RESPONSIBLE FOR COMPLIANCE WITH AND FULFILLMENT OF ALL REQUIREMENTS OF THE NPDES GENERAL PERMIT NO. 2 INCLUDING CREATING OR MAINTAINING THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) AND POSSIBLY OBTAINING THE GENERAL PERMIT COVERAGE FROM THE IDNR.

2. ALL DOCUMENTS RELATED TO THE STORM WATER DISCHARGE PERMIT, INCLUDING, BUT NOT LIMITED TO, THE NOTICE OF INTENT, PROOF OF PUBLICATIONS, DISCHARGE AUTHORIZATION LETTER, CURRENT SWPPP, SITE INSPECTION LOG, AND OTHER ITEMS, SHALL BE KEPT ON SITE AT ALL TIMES AND MUST BE PRESENTED TO ANY JURISDICTIONAL AGENCIES UPON REQUEST. FAILURE TO COMPLY WITH THE NPDES PERMIT REQUIREMENTS IS A VIOLATION OF THE CLEAN WATER ACT AND THE CODE OF IOWA.

3. A "NOTICE OF DISCONTINUATION" MUST BE FILED WITH THE IDNR UPON FINAL STABILIZATION OF THE DISTURBED SITE AND REMOVAL OF ALL TEMPORARY EROSION CONTROL MEASURES. ALL PLANS, INSPECTION REPORTS, AND OTHER DOCUMENTS MUST BE RETAINED FOR A PERIOD OF THREE YEARS AFTER PROJECT COMPLETION. THE CONTRACTOR SHALL RETAIN A RECORD COPY AND PROVIDE THE ORIGINAL DOCUMENTS TO THE OWNER UPON PROJECT ACCEPTANCE AND/OR SUBMITTAL OF THE NOTICE OF DISCONTINUATION.

C. POLLUTION PREVENTION PLAN:

1. THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) IS A SEPARATE DOCUMENT IN ADDITION TO THESE PLAN DRAWINGS. THE CONTRACTOR SHOULD REFER TO THE SWPPP FOR ADDITIONAL REQUIREMENTS AND MODIFICATIONS TO THE POLLUTION PREVENTION PLAN MADE DURING CONSTRUCTION.

2. THE SWPPP ILLUSTRATES GENERAL MEASURES AND BEST MANAGEMENT PRACTICES (BMP) FOR COMPLIANCE WITH THE PROJECT'S NPDES PERMIT COVERAGE. ALL BMP'S AND EROSION CONTROL MEASURES REQUIRED AS A RESULT OF CONSTRUCTION ACTIVITIES ARE THE RESPONSIBILITY OF THE CONTRACTOR TO IDENTIFY, NOTE AND IMPLEMENT. ADDITIONAL BMP'S FROM THOSE SHOWN ON THE PLAN MAY BE REQUIRED.

3. THE SWPPP AND SITE MAP SHOULD BE EXPEDITIOUSLY REVISED TO REFLECT CONSTRUCTION PROGRESS AND CHANGES AT THE PROJECT SITE.

4. THE CONTRACTOR IS RESPONSIBLE FOR COMPLIANCE WITH ALL REQUIREMENTS OF THE GENERAL PERMIT AND SWPPP, INCLUDING, BUT NOT LIMITED TO, THE FOLLOWING BMP'S UNLESS INFEASIBLE OR NOT APPLICABLE:

a. UTILIZE OUTLET STRUCTURES THAT WITHDRAW WATER FROM THE SURFACE WHEN DISCHARGING FROM BASINS, PROVIDE AND MAINTAIN NATURAL BUFFERS AROUND SURFACE WATERS, DIRECT STORM WATER TO VEGETATED AREAS TO INCREASE SEDIMENT REMOVAL AND MAXIMIZE STORM WATER INFILTRATION, AND MINIMIZE SOIL COMPACTION.

b. INSTALL PERIMETER AND FINAL SEDIMENT CONTROL MEASURES SUCH AS SILT BARRIERS, DITCH CHECKS, DIVERSION BERMS, OR SEDIMENTATION BASINS DOWNSTREAM OF SOIL DISTURBING ACTIVITIES PRIOR TO SITE CLEARING AND GRADING OPERATIONS.

c. PRESERVE EXISTING VEGETATION IN AREAS NOT NEEDED FOR CONSTRUCTION AND LIMIT TO A MINIMUM THE TOTAL AREA DISTURBED BY CONSTRUCTION OPERATIONS AT ANY TIME.

d. MAINTAIN ALL TEMPORARY AND PERMANENT EROSION CONTROL MEASURES IN WORKING ORDER, INCLUDING CLEANING, REPAIRING, REPLACEMENT, AND SEDIMENT REMOVAL THROUGHOUT THE PERMIT PERIOD. CLEAN OR REPLACE SILT CONTROL DEVICES WHEN THE MEASURES HAVE LOST 50% OF THEIR ORIGINAL CAPACITY.

e. INSPECT THE PROJECT AREA AND CONTROL DEVICES (BY QUALIFIED PERSONNEL ASSIGNED BY THE CONTRACTOR) EVERY SEVEN CALENDAR DAYS. RECORD THE FINDINGS OF THESE INSPECTIONS AND ANY RESULTING ACTIONS IN THE SWPPP WITH A COPY SUBMITTED WEEKLY TO THE OWNER OR ENGINEER DURING CONSTRUCTION. REVISE THE SWPPP AND IMPLEMENT ANY RECOMMENDED MEASURES WITHIN 3 DAYS.

f. PREVENT ACCUMULATION OF EARTH AND DEBRIS FROM CONSTRUCTION ACTIVITIES ON ADJOINING PUBLIC OR PRIVATE PROPERTIES, INCLUDING STREETS, DRIVEWAYS, SIDEWALKS, DRAINAGEWAYS, OR UNDERGROUND SEWERS. REMOVE ANY ACCUMULATION OF EARTH OR DEBRIS IMMEDIATELY AND TAKE REMEDIAL ACTIONS FOR FUTURE PREVENTION.

g. INSTALL NECESSARY CONTROL MEASURES SUCH AS SILT BARRIERS, EROSION CONTROL MATS, MULCH, DITCH CHECKS OR RIPRAP AS SOON AS AREAS REACH THEIR FINAL GRADES AND AS CONSTRUCTION OPERATIONS PROGRESS TO ENSURE CONTINUOUS RUNOFF CONTROL. PROVIDE INLET AND OUTLET CONTROL MEASURES AS SOON AS STORM SEWERS ARE INSTALLED.

h. RESPREAD A MINIMUM OF 6 INCHES OF TOPSOIL (INCLUDING TOPSOIL FOUND IN SOD) ON ALL DISTURBED AREAS, EXCEPT WHERE PAVEMENT, BUILDINGS OR OTHER IMPROVEMENTS ARE LOCATED.

i. STABILIZE UNDEVELOPED, DISTURBED AREAS WITH MULCH, TEMPORARY SEED MIX, PERMANENT SEED MIX, OR SOD AS SOON AS PRACTICAL UPON COMPLETION OR DELAY OF GRADING OPERATIONS. INITIATE STABILIZATION MEASURES NO LATER THAN 14 CALENDAR DAYS AFTER CONSTRUCTION ACTIVITY HAS FINISHED OR IS PLANNED TO BE DELAYED MORE THAN 21 CALENDAR DAYS.

j. COORDINATE LOCATIONS OF STAGING AREAS WITH THE OWNER AND RECORD IN THE SWPPP. UNLESS NOTED OTHERWISE, STAGING AREAS SHOULD CONTAIN THE FOLLOWING: JOB TRAILERS, FUELING / VEHICLE MAINTENANCE AREA, TEMPORARY SANITARY FACILITIES, MATERIALS STORAGE, AND CONCRETE WASHOUT FACILITY. CONTROL RUNOFF FROM STAGING AREAS WITH DIVERSION BERMS AND/OR SILT BARRIERS AND DIRECT TO A SEDIMENT BASIN OR OTHER CONTROL DEVICE WHERE POSSIBLE. CONCRETE WASHOUT MUST BE CONTAINED ONSITE.

k. REMOVE ALL TEMPORARY EROSION CONTROL MEASURES AND SITE WASTE PRIOR TO FILING OF THE "NOTICE OF DISCONTINUATION".

MARK	REVISION	DATE	BY
2	REVISED AS PER CITY COMMENTS	01/28/16	JWM
1	REVISED AS PER CITY COMMENTS	12/23/15	JWM

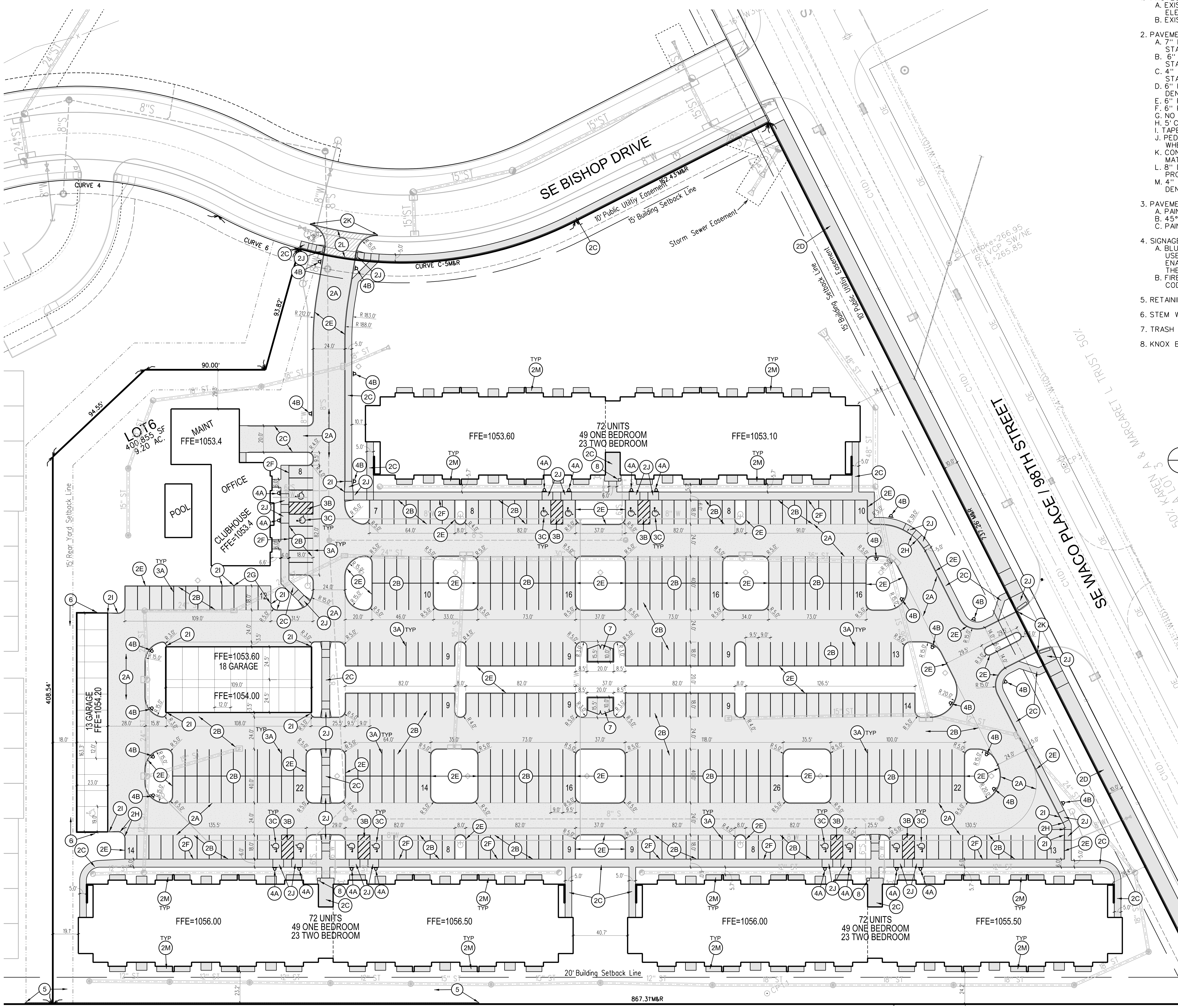
Engineer: EDC | Checked By: EDC | Scale: 1"=
Technician: JWM | Date: 11-18-15 | Field Bk: | Pg:
Project No: 115.0886 | Sheet 2 of 10

COVE AT KETTLESTONE APARTMENTS

PROJECT INFORMATION

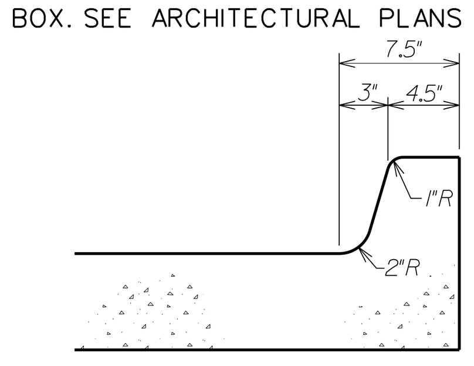
WAUKEE, IA

SNYDER & ASSOCIATES, INC.
2727 S.W. SNYDER BLVD.
ANKENY, IOWA 50023
515-964-2020 | www.snyder-associates.com

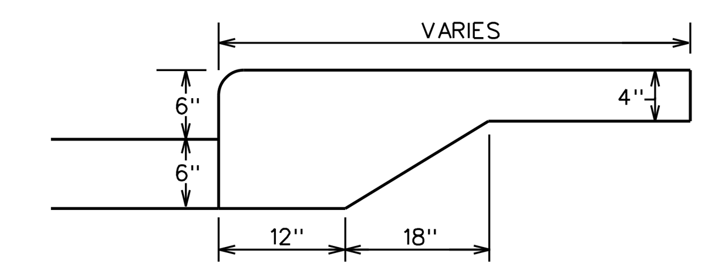


DIMENSION PLAN CONSTRUCTION NOTES

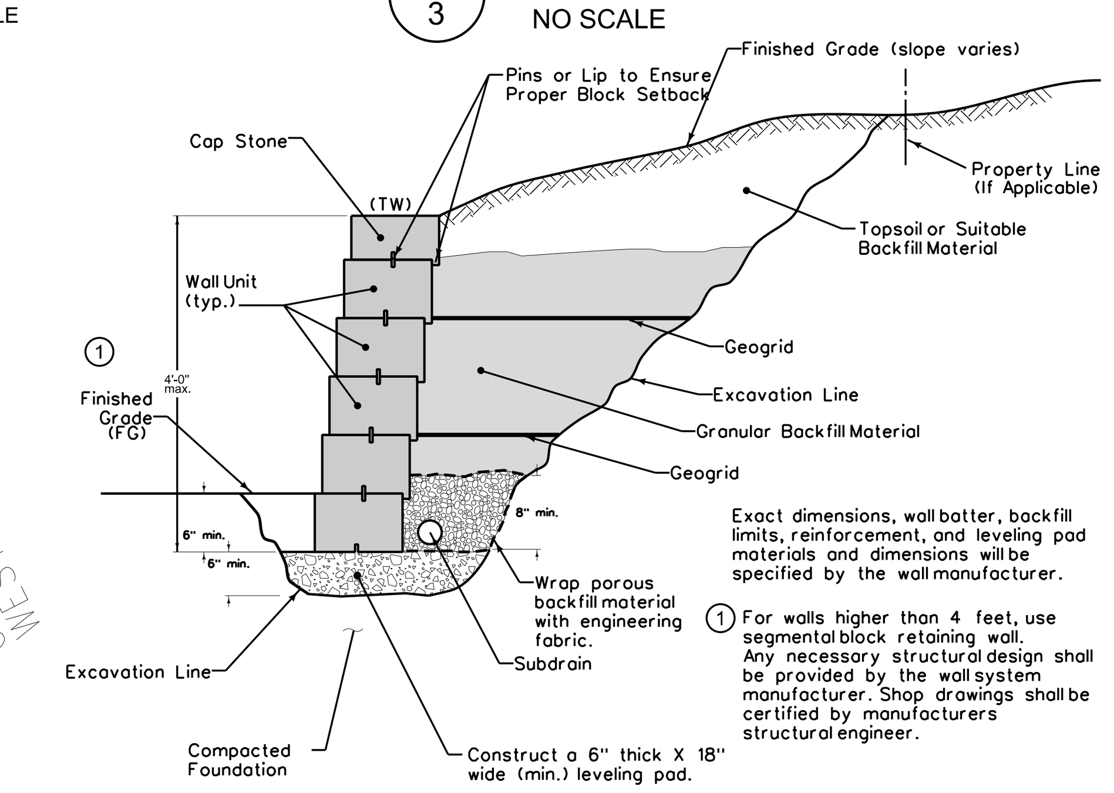
1. PROTECT THE FOLLOWING SITE FEATURES:
   - A. EXISTING UTILITY. ADJUST AS NECESSARY TO ALLOW FOR CONSTRUCTION. VERIFY LOCATION, ELEVATION AND MINIMUM COVER REQUIREMENTS PRIOR TO CONSTRUCTION.
   - B. EXISTING PAVEMENT.
2. PAVEMENTS, PROVIDE THE FOLLOWING:
   - A. 7" DEPTH PCC PAVEMENT ON 12" DEPTH PREPARED SUBGRADE COMPACTED TO 95% STANDARD PROCTOR DENSITY.
   - B. 6" DEPTH PCC PAVEMENT ON 12" DEPTH PREPARED SUBGRADE COMPACTED TO 95% STANDARD PROCTOR DENSITY.
   - C. 4" MINIMUM DEPTH PCC SIDEWALK ON 6" DEPTH PREPARED SUBGRADE COMPACTED TO 95% STANDARD PROCTOR DENSITY.
   - D. 6" PCC TRAIL ON 6" DEPTH PREPARED SUBGRADE COMPACTED TO 95% STANDARD PROCTOR DENSITY.
   - E. 6" PCC STANDARD CURB.
   - F. 6" PCC INTEGRAL CURB AND SIDEWALK.
   - G. NO CURB.
   - H. 5' CURB OPENING.
   - I. TAPER FROM FULL 6" CURB.
   - J. PEDESTRIAN RAMP WITH MAXIMUM SLOPE OF 8.33%. PROVIDE DETECTABLE WARNING PANELS WHERE SHOWN.
   - K. CONNECT TO EXISTING PCC PAVEMENT. SUDAS TYPE "A" CONNECTION WITH EXPANSION JOINT. MATCH EXISTING ELEVATIONS.
   - L. 8" DEPTH PCC PAVEMENT ON 12" DEPTH PREPARED SUBGRADE COMPACTED TO 95% STANDARD PROCTOR DENSITY.
   - M. 4" PCC PATIO ON 12" DEPTH PREPARED SUBGRADE COMPACTED TO 95% STANDARD PROCTOR DENSITY.
3. PAVEMENT MARKINGS, PROVIDE THE FOLLOWING:
   - A. PAINTED PARKING STALL LINE, 4" WIDE, PAINTED YELLOW.
   - B. 45° STRIPING AT 3' ON CENTER SPACING WHERE SHOWN.
   - C. PAINTED STATE OF IOWA APPROVED DISABLED SYMBOL.
4. SIGNAGE, PROVIDE THE FOLLOWING:
   - A. BLUE SIGN WITH DISABLED SYMBOL READING "PARKING ONLY" AND "$200 FINE FOR IMPROPER USE" AS PER ADAAG STANDARDS. SECURE SIGN TO 2" SQUARE STEEL CHANNEL POST WITH ENAMEL FINISH IN A 12" DIAMETER CONCRETE FOOTING. FOR THE TWO STALLS CLOSEST TO THE BUILDING ALSO ADD SIGN READING "VAN ACCESSIBLE".
   - B. FIRELANE SIGNAGE AND MARKINGS AS PER SECTION 511.4 OF CHAPTER 222 OF THE MUNICIPAL CODE OF WAUKEE.
5. RETAINING WALL.
6. STEM WALL ON GARAGE. SEE ARCHITECTURAL PLANS FOR DETAIL.
7. TRASH ENCLOSURE. SEE ARCHITECTURAL PLANS FOR DETAIL.
8. KNOX BOX. SEE ARCHITECTURAL PLANS FOR DETAIL.



1/3 6" STANDARD CURB
NOT TO SCALE



2/3 PCC INTEGRAL CURB
NO SCALE



3/3 MODULAR BLOCK WALL DETAIL
NOT TO SCALE

SCALE (FEET) 0 40

MARK	REVISION	DATE	BY
2	REVISED AS PER CITY COMMENTS	01/28/16	JWM
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Engineer: EDC | Checked By: EDC | Scale: 1"= 40'
Technician: JWM | Date: 11-18-15 | Field Bk: | Pg:
Project No: 115.0886
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COVE AT KETTLESTONE APARTMENTS
WAUKEE, IA
DIMENSION PLAN

SNYDER & ASSOCIATES, INC.
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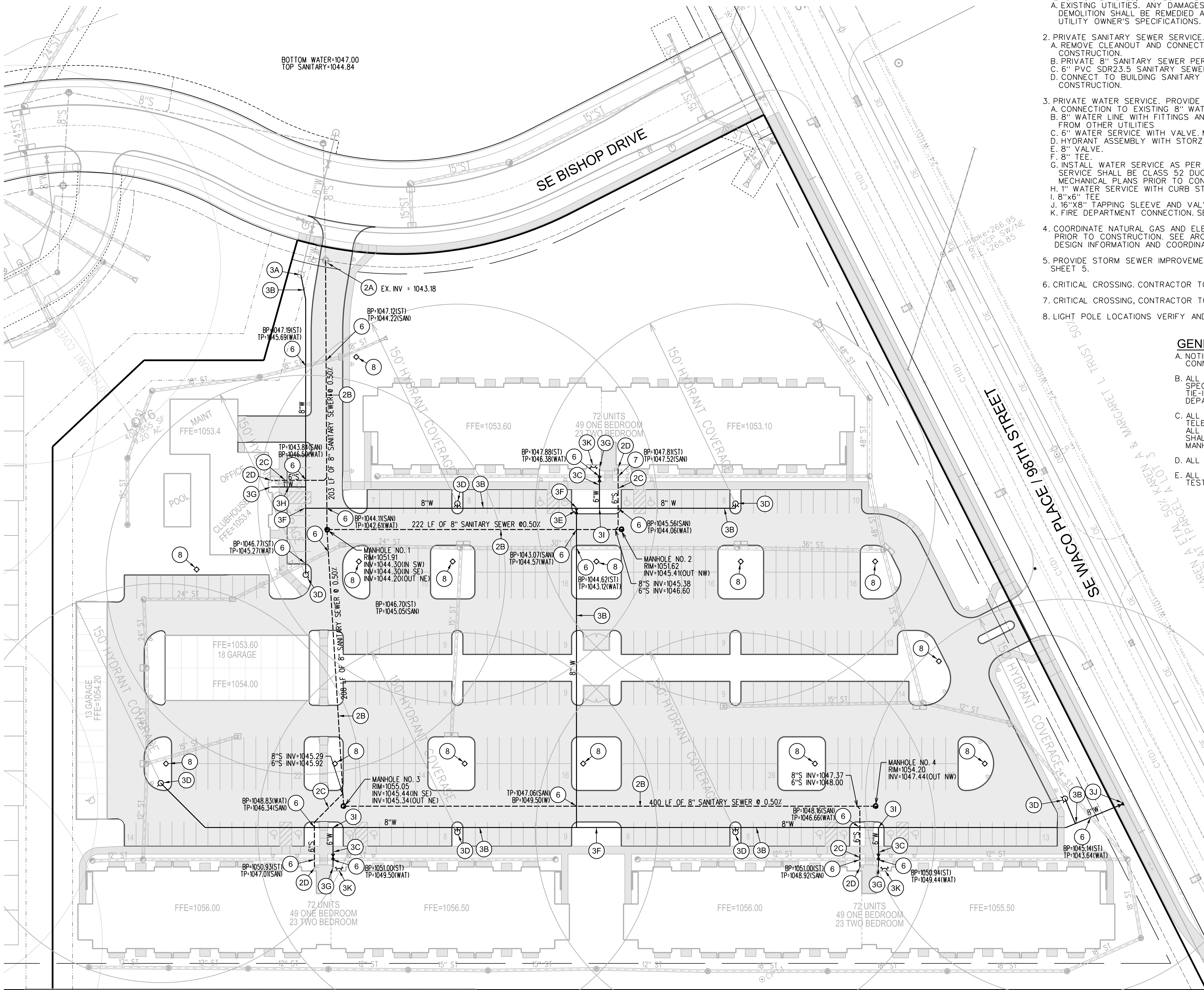


UTILITY PLAN CONSTRUCTION NOTES

1. EXISTING FEATURES, PROTECT THE FOLLOWING:
   A. EXISTING UTILITIES. ANY DAMAGES TO EXISTING UTILITIES THAT ARE NOT SCHEDULED FOR MODIFICATION OR DEMOLITION SHALL BE REMEDIED AT THE CONTRACTOR'S EXPENSE WITH THE WORK BEING PERFORMED TO THE UTILITY OWNER'S SPECIFICATIONS.
2. PRIVATE SANITARY SEWER SERVICE.
   A. REMOVE CLEANOUT AND CONNECT TO EXISTING SANITARY SEWER STUB. CONTRACTOR TO VERIFY PRIOR TO CONSTRUCTION.
   B. PRIVATE 8'' SANITARY SEWER PER CITY OF WAUKEE STANDARD SPECIFICATIONS FOR PUBLIC IMPROVEMENTS.
   C. 6'' PVC SDR23.5 SANITARY SEWER STUB AT MINIMUM 1.00%.
   D. CONNECT TO BUILDING SANITARY SERVICE. VERIFY LOCATION AND ELEVATION WITH MECHANICAL PLANS PRIOR TO CONSTRUCTION.
3. PRIVATE WATER SERVICE. PROVIDE THE FOLLOWING AS PER CITY OF WAUKEE STANDARDS.
   A. CONNECTION TO EXISTING 8'' WATER MAIN.
   B. 8'' WATER LINE WITH FITTINGS AND BENDS AS NECESSARY. MINIMUM 5.5' DEEP. MAINTAIN 18'' VERTICAL CLEARANCE FROM OTHER UTILITIES
   C. 6'' WATER SERVICE WITH VALVE. MAINTAIN 18'' VERTICAL CLEARANCE FROM OTHER UTILITIES.
   D. HYDRANT ASSEMBLY WITH STORZ FITTINGS.
   E. 8'' VALVE.
   F. 8'' TEE.
   G. INSTALL WATER SERVICE AS PER CITY OF WAUKEE STANDARD SPECIFICATIONS FOR PUBLIC IMPROVEMENTS. SERVICE SHALL BE CLASS 52 DUCTILE IRON PIPE. CONNECT TO BUILDING WATER SERVICE. VERIFY LOCATION WITH MECHANICAL PLANS PRIOR TO CONSTRUCTION.
   H. 1'' WATER SERVICE WITH CURB STOP. MAINTAIN 18'' VERTICAL CLEARANCE FROM OTHER UTILITIES.
   I. 8''x6'' TEE
   J. 16''X8'' TAPPING SLEEVE AND VALVE.
   K. FIRE DEPARTMENT CONNECTION. SEE MECHANICAL AND ARCHITECTURAL PLANS FOR DETAILS.
4. COORDINATE NATURAL GAS AND ELECTRICAL SERVICES AND METER LOCATION WITH UTILITY SERVICE PROVIDER PRIOR TO CONSTRUCTION. SEE ARCHITECTURAL AND MECHANICAL PLANS FOR INTERIOR UTILITY ROUTING, METERS, DESIGN INFORMATION AND COORDINATE UTILITY CONNECTIONS ACCORDINGLY.
5. PROVIDE STORM SEWER IMPROVEMENTS AS SHOWN ON THE PLANS AS PER CITY OF WAUKEE STANDARDS. SEE SHEET 5.
6. CRITICAL CROSSING. CONTRACTOR TO VERIFY ALL CROSSINGS AND PROVIDE 18'' MINIMUM SEPARATION.
7. CRITICAL CROSSING, CONTRACTOR TO PROVIDE STRUCTURAL SUPPORT AS SHOWN IN SUDAS FIGURE 3010.901
8. LIGHT POLE LOCATIONS VERIFY AND SEE ELECTRICAL DRAWINGS FOR DETAILED CONSTRUCTION INFORMATION.

GENERAL CONSTRUCTION NOTES

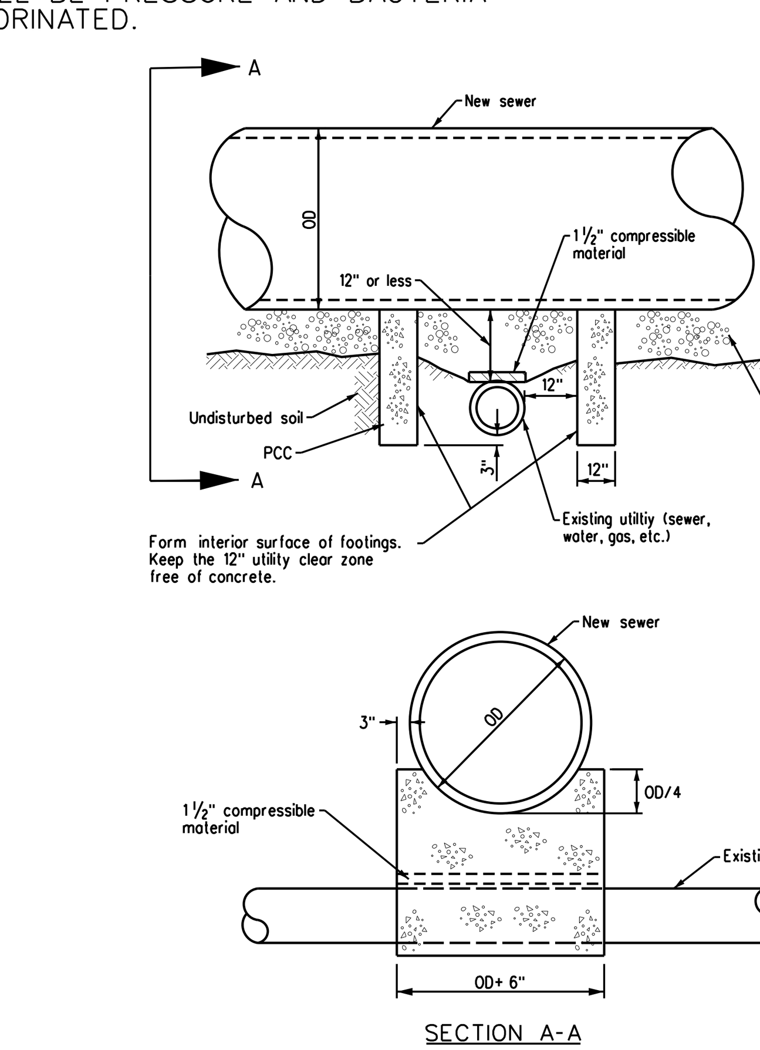
A. NOTIFY THE CITY OF WAUKEE AT LEAST 48 HRS PRIOR TO CONNECTING TO ANY PUBLIC UTILITY.

B. ALL UTILITIES SHALL BE TESTED TO THE CITY OF WAUKEE STANDARD SPECIFICATION FOR PUBLIC IMPROVEMENTS AND ANY TESTING OR TIE-INS SHALL BE WITNESSED BY THE CITY OF WAUKEE ENGINEERING DEPARTMENT.

C. ALL SANITARY SEWER AND STORM SEWER SHALL BE CLEANED AND TELEVISED PRIOR TO PAVING. THE CITY OF WAUKEE SHALL WITNESS ALL CLEANING AND TELEVISING. COPIES OF THE REPORT AND VIDEO SHALL BE PROVIDED TO THE CITY OF WAUKEE. ALL SANITARY SEWER MANHOLES SHALL BE VACUUM TESTED.

D. ALL SANITARY MANHOLES TO BE VACUUM TESTED.

E. ALL WATERMAIN SHALL BE PRESSURE AND BACTERIA TESTED AND DECHLORINATED.



1/4 PIPE SUPPORT OVER EXISTING UTILITY
NOT TO SCALE

SCALE (FEET) 0 40

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COVE AT KETTLESTONE APARTMENTS

WATER MAIN AND SANITARY SEWER PLAN

WAUKEE, IA

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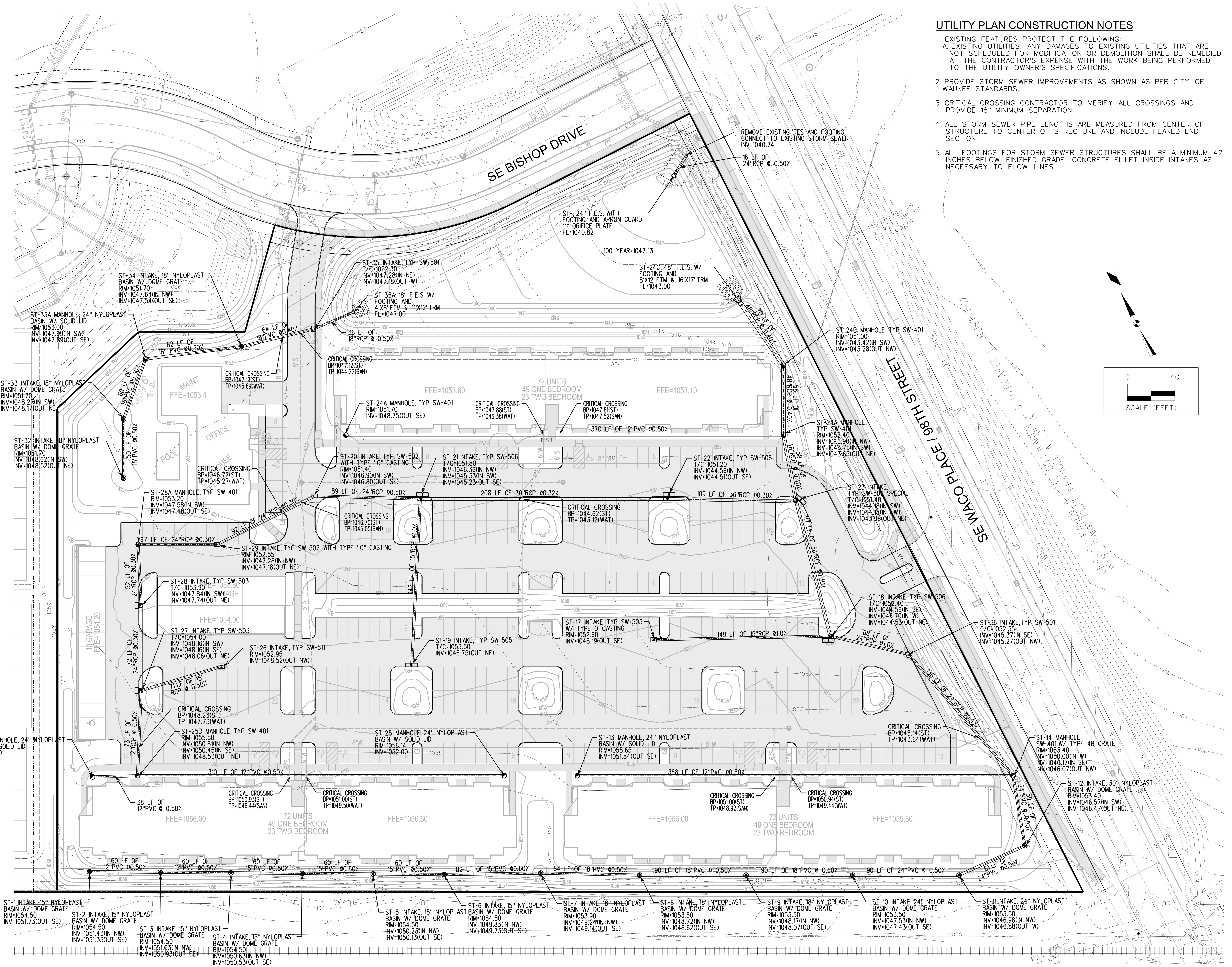
Project No: 115.0886

UTILITY PLAN CONSTRUCTION NOTES

1. EXISTING FEATURES, PROTECT THE FOLLOWING:
   A. EXISTING UTILITIES. ANY DAMAGES TO EXISTING UTILITIES THAT ARE NOT SCHEDULED FOR MODIFICATION OR DEMOLITION SHALL BE REMEDIED AT THE CONTRACTOR'S EXPENSE WITH THE WORK BEING PERFORMED TO THE UTILITY OWNER'S SPECIFICATIONS.
2. PROVIDE STORM SEWER IMPROVEMENTS AS SHOWN AS PER CITY OF WAUKEE STANDARDS.
3. CRITICAL CROSSING. CONTRACTOR TO VERIFY ALL CROSSINGS AND PROVIDE 18" MINIMUM SEPARATION.
4. ALL STORM SEWER PIPE LENGTHS ARE MEASURED FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE AND INCLUDE FLARED END SECTION.
5. ALL FOOTINGS FOR STORM SEWER STRUCTURES SHALL BE A MINIMUM 42 INCHES BELOW FINISHED GRADE. CONCRETE FILLET INSIDE INTAKES AS NECESSARY TO FLOW LINES.



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COVE AT KETTLESTONE APARTMENTS

STORM SEWER PLAN

WAUKEE, IA

SNYDER & ASSOCIATES, INC.

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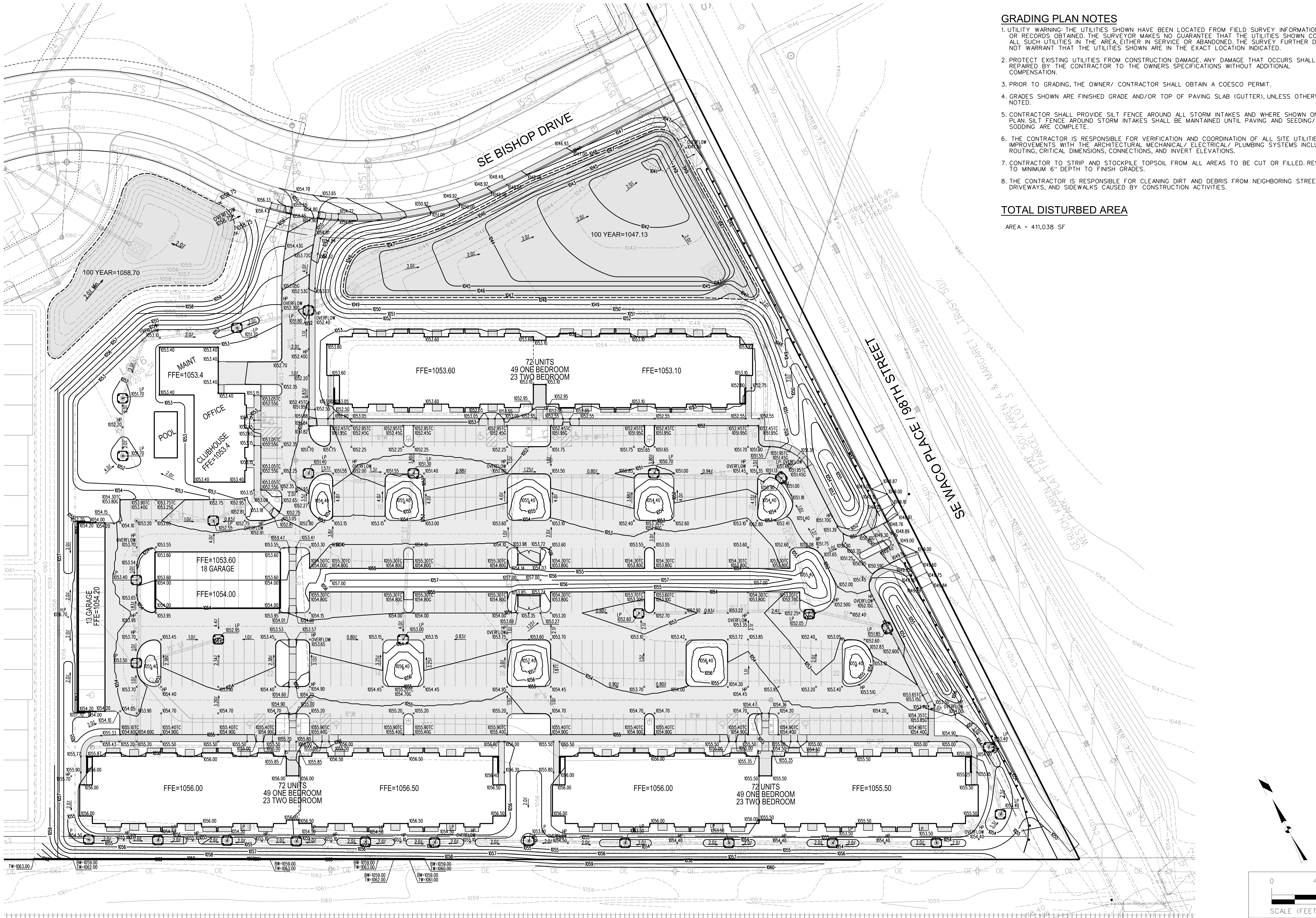

GRADING PLAN NOTES

1. UTILITY WARNING: THE UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND/ OR RECORDS OBTAINED. THE SURVEYOR MAKES NO GUARANTEE THAT THE UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEY FURTHER DOES NOT WARRANT THAT THE UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED.

2. PROTECT EXISTING UTILITIES FROM CONSTRUCTION DAMAGE. ANY DAMAGE THAT OCCURS SHALL BE REPAIRED BY THE CONTRACTOR TO THE OWNERS SPECIFICATIONS WITHOUT ADDITIONAL COMPENSATION.

3. PRIOR TO GRADING, THE OWNER/ CONTRACTOR SHALL OBTAIN A COESCO PERMIT.

4. GRADES SHOWN ARE FINISHED GRADE AND/OR TOP OF PAVING SLAB (GUTTER), UNLESS OTHERWISE NOTED.

5. CONTRACTOR SHALL PROVIDE SILT FENCE AROUND ALL STORM INTAKES AND WHERE SHOWN ON THE PLAN. SILT FENCE AROUND STORM INTAKES SHALL BE MAINTAINED UNTIL PAVING AND SEEDING/ SODDING ARE COMPLETE.

6. THE CONTRACTOR IS RESPONSIBLE FOR VERIFICATION AND COORDINATION OF ALL SITE UTILITIES AND IMPROVEMENTS WITH THE ARCHITECTURAL MECHANICAL/ ELECTRICAL/ PLUMBING SYSTEMS INCLUDING ROUTING, CRITICAL DIMENSIONS, CONNECTIONS, AND INVERT ELEVATIONS.

7. CONTRACTOR TO STRIP AND STOCKPILE TOPSOIL FROM ALL AREAS TO BE CUT OR FILLED. RESPREAD TO MINIMUM 6" DEPTH TO FINISH GRADES.

8. THE CONTRACTOR IS RESPONSIBLE FOR CLEANING DIRT AND DEBRIS FROM NEIGHBORING STREETS, DRIVEWAYS, AND SIDEWALKS CAUSED BY CONSTRUCTION ACTIVITIES.

TOTAL DISTURBED AREA

AREA = 411,038 SF

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COVE AT KETTLESTONE APARTMENTS

GRADING PLAN

WAUKEE, IA

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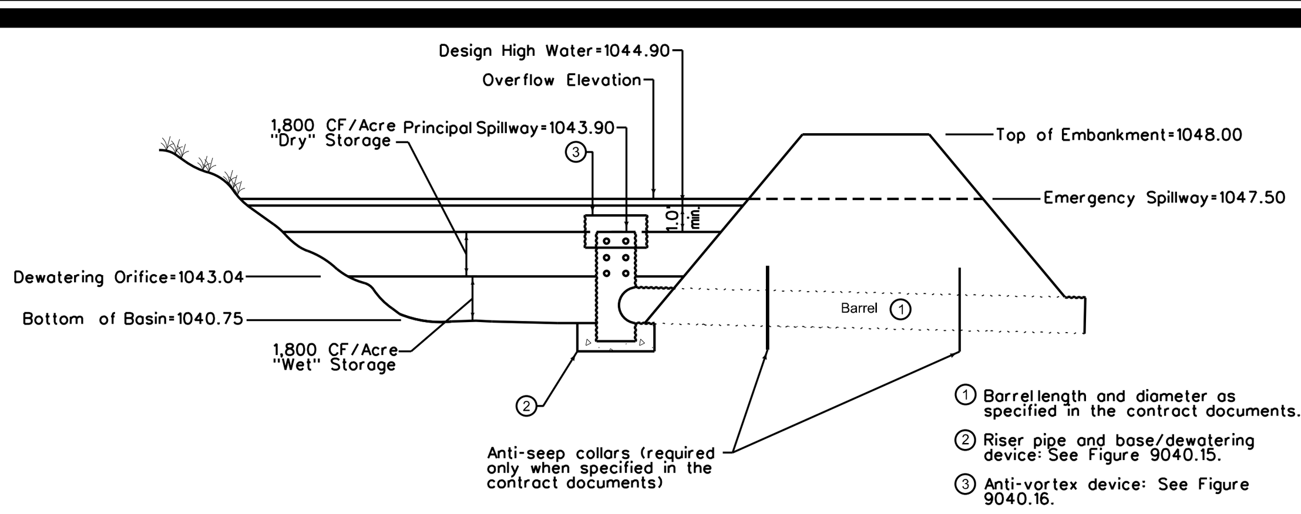
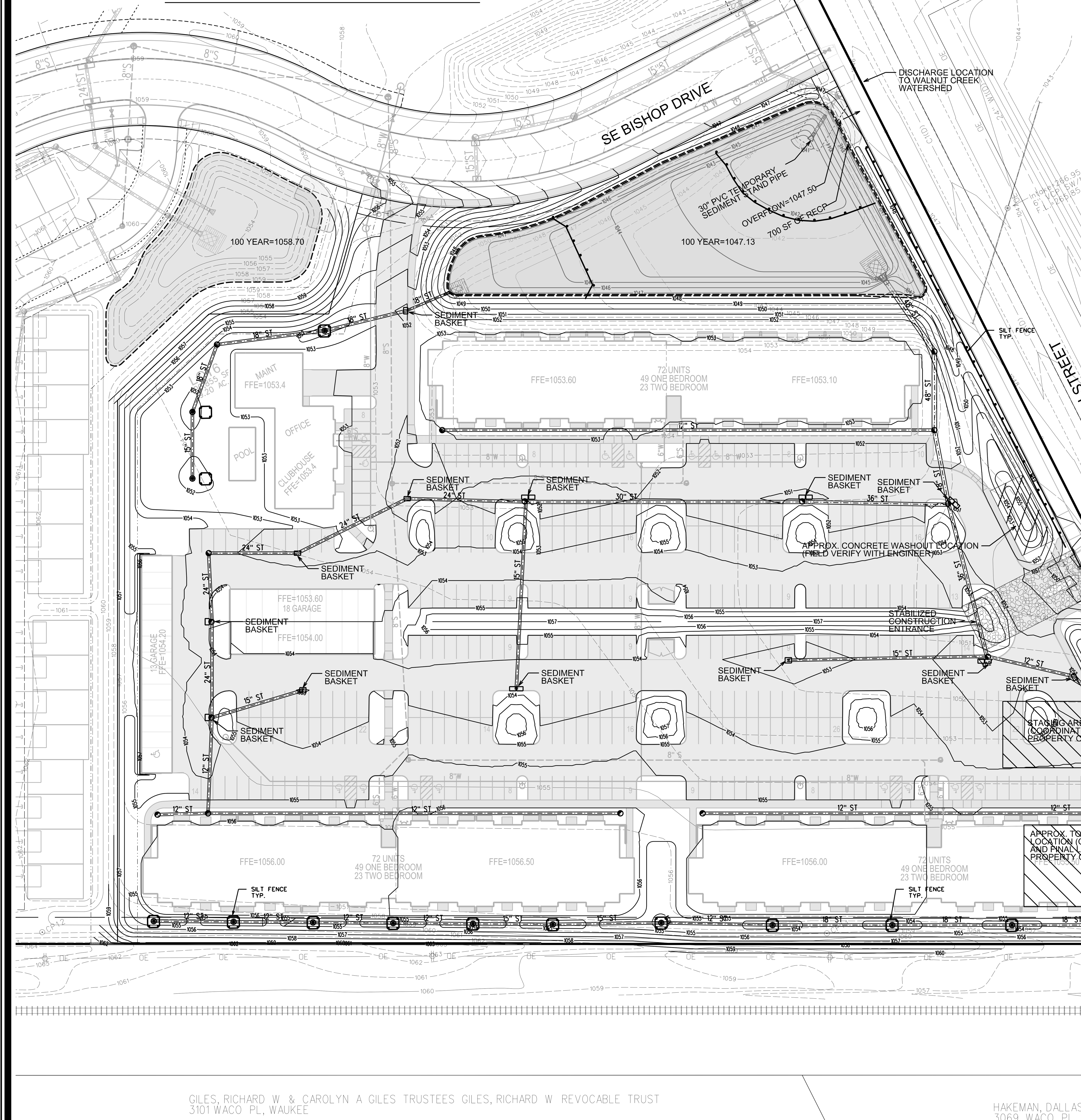
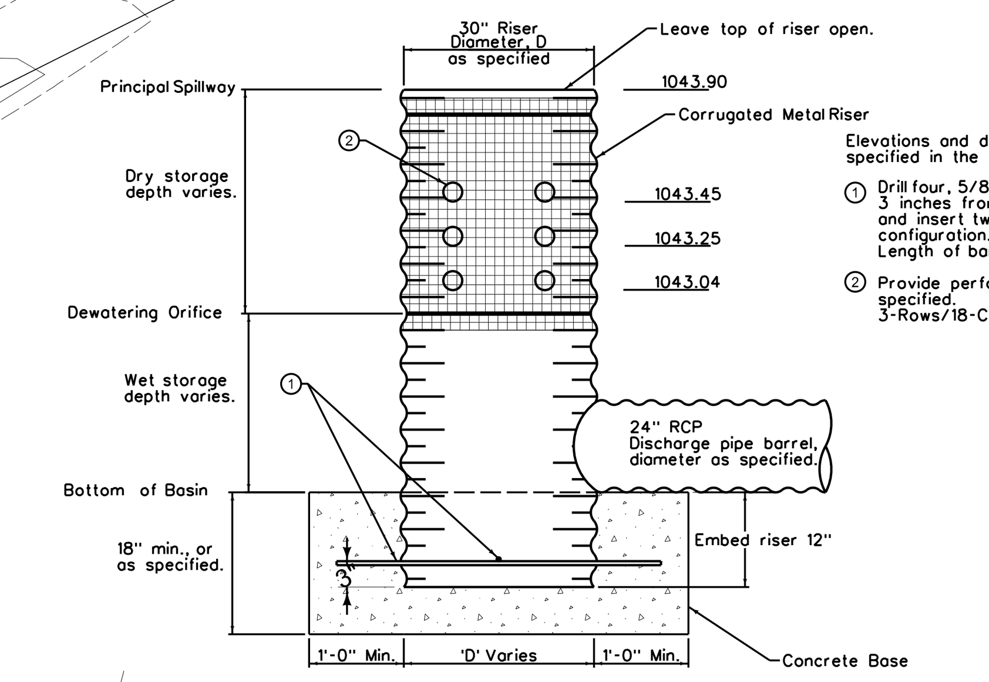
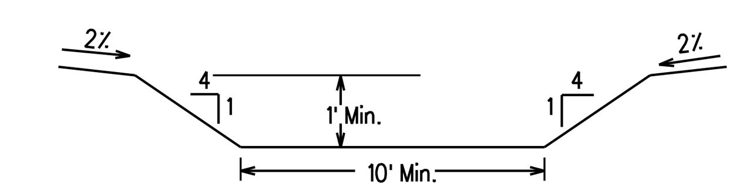


SEDIMENT BASIN WITH EMERGENCY SPILLWAY





EXISTING SEDIMENT BASIN DEWATERING DEVICE (PERFORATED RISER)



EMERGENCY SPILLWAY SECTION

OVERFLOW ROUTES

POTENTIAL STORM WATER MANAGEMENT FACILITY LOCATIONS

POLLUTION PREVENTION NOTES

A. POLLUTION PREVENTION AND EROSION PROTECTION

1. CODE COMPLIANCE: THE CONTRACTOR IS RESPONSIBLE FOR COMPLIANCE WITH ALL POTENTIAL POLLUTION AND SOIL EROSION CONTROL REQUIREMENTS OF THE IOWA CODE, THE IOWA DEPARTMENT OF NATURAL RESOURCES (IDNR) NPDES PERMIT, THE U.S. CLEAN WATER ACT AND ANY LOCAL ORDINANCES. THE CONTRACTOR SHALL TAKE ALL NECESSARY STEPS TO PROTECT AGAINST EROSION AND POLLUTION FROM THIS PROJECT SITE AND ALL OFF-SITE BORROW OR DEPOSIT AREAS DURING PERFORMANCE OR AS A RESULT OF PERFORMANCE.
2. DAMAGE CLAIMS: THE CONTRACTOR WILL HOLD THE OWNER AND ARCHITECT / ENGINEER HARMLESS FROM ANY AND ALL CLAIMS OF ANY TYPE WHATSOEVER RESULTING FROM DAMAGES TO ADJOINING PUBLIC OR PRIVATE PROPERTY, INCLUDING REASONABLE ATTORNEY FEES INCURRED TO OWNER. FURTHER, IF THE CONTRACTOR FAILS TO TAKE NECESSARY STEPS TO PROMPTLY REMOVE EARTH SEDIMENTATION OR DEBRIS WHICH COMES ONTO ADJOINING PUBLIC OR PRIVATE PROPERTY, THE OWNER MAY, BUT NEED NOT, REMOVE SUCH ITEMS AND DEDUCT THE COST THEREOF FROM AMOUNTS DUE TO THE CONTRACTOR.

B. STORM WATER DISCHARGE PERMIT

1. THIS PROJECT REQUIRES COVERAGE UNDER THE NPDES GENERAL PERMIT NO. 2 FOR STORM WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITIES FROM THE IDNR, AS REQUIRED BY THE ENVIRONMENTAL PROTECTION AGENCY (EPA). THE GENERAL CONTRACTOR AND ALL SUBCONTRACTORS ARE RESPONSIBLE FOR COMPLIANCE WITH AND FULFILLMENT OF ALL REQUIREMENTS OF THE NPDES GENERAL PERMIT NO. 2 INCLUDING CREATING OR MAINTAINING THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) AND POSSIBLY OBTAINING THE GENERAL PERMIT COVERAGE FROM THE IDNR.
2. ALL DOCUMENTS RELATED TO THE STORM WATER DISCHARGE PERMIT, INCLUDING, BUT NOT LIMITED TO, THE NOTICE OF INTENT, PROOF OF PUBLICATIONS, DISCHARGE AUTHORIZATION LETTER, CURRENT SWPPP, SITE INSPECTION LOG, AND OTHER ITEMS, SHALL BE KEPT ON SITE OR OFFSITE. IF KEPT OFFSITE, THESE DOCUMENTS MUST BE PRESENTED TO ANY JURISDICTIONAL AGENCIES WITHIN 3 HOURS OF BEING REQUESTED. FAILURE TO COMPLY WITH THE NPDES PERMIT REQUIREMENTS IS A VIOLATION OF THE CLEAN WATER ACT AND THE CODE OF IOWA.
3. A "NOTICE OF DISCONTINUATION" MUST BE FILED WITH THE IDNR UPON FINAL STABILIZATION OF THE DISTURBED SITE AND REMOVAL OF ALL TEMPORARY EROSION CONTROL MEASURES. ALL PLANS, INSPECTION REPORTS, AND OTHER DOCUMENTS MUST BE RETAINED FOR A PERIOD OF THREE YEARS AFTER PROJECT COMPLETION. THE CONTRACTOR SHALL RETAIN A RECORD COPY AND PROVIDE THE ORIGINAL DOCUMENTS TO THE OWNER UPON PROJECT ACCEPTANCE AND/OR SUBMITTAL OF THE NOTICE OF DISCONTINUATION.

C. POLLUTION PREVENTION PLAN:

1. THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) IS A SEPARATE DOCUMENT IN ADDITION TO THESE PLAN DRAWINGS. THE CONTRACTOR SHOULD REFER TO THE SWPPP FOR ADDITIONAL REQUIREMENTS AND MODIFICATIONS TO THE POLLUTION PREVENTION PLAN MADE DURING CONSTRUCTION.
2. THE SWPPP ILLUSTRATES GENERAL MEASURES AND BEST MANAGEMENT PRACTICES (BMP) FOR COMPLIANCE WITH THE PROJECT'S NPDES PERMIT COVERAGE. ALL BMP'S AND EROSION CONTROL MEASURES REQUIRED AS A RESULT OF CONSTRUCTION ACTIVITIES ARE THE RESPONSIBILITY OF THE CONTRACTOR TO IDENTIFY, NOTE AND IMPLEMENT. ADDITIONAL BMP'S FROM THOSE SHOWN ON THE PLAN MAY BE REQUIRED.
3. THE SWPPP AND SITE MAP SHOULD BE EXPEDITIOUSLY REVISED TO REFLECT CONSTRUCTION PROGRESS AND CHANGES AT THE PROJECT SITE.
4. THE CONTRACTOR IS RESPONSIBLE FOR COMPLIANCE WITH ALL REQUIREMENTS OF THE GENERAL PERMIT AND SWPPP, INCLUDING, BUT NOT LIMITED TO, THE FOLLOWING BMP'S UNLESS INFEASIBLE OR NOT APPLICABLE:

a. UTILIZE OUTLET STRUCTURES THAT WITHDRAW WATER FROM THE SURFACE WHEN DISCHARGING FROM BASINS, PROVIDE AND MAINTAIN NATURAL BUFFERS AROUND SURFACE WATERS, DIRECT STORM WATER TO VEGETATED AREAS TO INCREASE SEDIMENT REMOVAL AND MAXIMIZE STORM WATER INFILTRATION, AND MINIMIZE SOIL COMPACTION.

b. INSTALL PERIMETER AND FINAL SEDIMENT CONTROL MEASURES SUCH AS SILT BARRIERS, DITCH CHECKS, DIVERSION BERMS, OR SEDIMENTATION BASINS DOWNSTREAM OF SOIL DISTURBING ACTIVITIES PRIOR TO SITE CLEARING AND GRADING OPERATIONS.

c. PRESERVE EXISTING VEGETATION IN AREAS NOT NEEDED FOR CONSTRUCTION AND LIMIT TO A MINIMUM THE TOTAL AREA DISTURBED BY CONSTRUCTION OPERATIONS AT ANY TIME.

d. MAINTAIN ALL TEMPORARY AND PERMANENT EROSION CONTROL MEASURES IN WORKING ORDER, INCLUDING CLEANING, REPAIRING, REPLACEMENT, AND SEDIMENT REMOVAL THROUGHOUT THE PERMIT PERIOD. CLEAN OR REPLACE SILT CONTROL DEVICES WHEN THE MEASURES HAVE LOST 50% OF THEIR ORIGINAL CAPACITY.

e. INSPECT THE PROJECT AREA AND CONTROL DEVICES (BY QUALIFIED PERSONNEL ASSIGNED BY THE CONTRACTOR) EVERY SEVEN CALENDAR DAYS. RECORD THE FINDINGS OF THESE INSPECTIONS AND ANY RESULTING ACTIONS IN THE SWPPP WITH A COPY SUBMITTED WEEKLY TO THE OWNER OR ENGINEER DURING CONSTRUCTION. REVISE THE SWPPP AND IMPLEMENT ANY RECOMMENDED MEASURES WITHIN 3 DAYS.

f. PREVENT ACCUMULATION OF EARTH AND DEBRIS FROM CONSTRUCTION ACTIVITIES ON ADJOINING PUBLIC OR PRIVATE PROPERTIES, INCLUDING STREETS, DRIVEWAYS, SIDEWALKS, DRAINAGEWAYS, OR UNDERGROUND SEWERS. REMOVE ANY ACCUMULATION OF EARTH OR DEBRIS IMMEDIATELY AND TAKE REMEDIAL ACTIONS FOR FUTURE PREVENTION.

g. INSTALL NECESSARY CONTROL MEASURES SUCH AS SILT BARRIERS, EROSION CONTROL MATS, MULCH, DITCH CHECKS OR RIPRAP AS SOON AS AREAS REACH THEIR FINAL GRADES AND AS CONSTRUCTION OPERATIONS PROGRESS TO ENSURE CONTINUOUS RUNOFF CONTROL. PROVIDE INLET AND OUTLET CONTROL MEASURES AS SOON AS STORM SEWERS ARE INSTALLED.

h. RESPREAD A MINIMUM OF 6 INCHES OF TOPSOIL (INCLUDING TOPSOIL FOUND IN SOD) ON ALL DISTURBED AREAS, EXCEPT WHERE PAVEMENT, BUILDINGS OR OTHER IMPROVEMENTS ARE LOCATED.

i. STABILIZE UNDEVELOPED, DISTURBED AREAS WITH MULCH, TEMPORARY SEED MIX, PERMANENT SEED MIX, OR SOD AS SOON AS PRACTICAL UPON COMPLETION OR DELAY OF GRADING OPERATIONS. INITIATE STABILIZATION MEASURES NO LATER THAN 14 CALENDAR DAYS AFTER CONSTRUCTION ACTIVITY HAS FINISHED OR IS PLANNED TO BE DELAYED MORE THAN 21 CALENDAR DAYS.

j. COORDINATE LOCATIONS OF STAGING AREAS WITH THE OWNER AND RECORD IN THE SWPPP. UNLESS NOTED OTHERWISE, STAGING AREAS SHOULD CONTAIN THE FOLLOWING: JOB TRAILERS, FUELING / VEHICLE MAINTENANCE AREA, TEMPORARY SANITARY FACILITIES, MATERIALS STORAGE, AND CONCRETE WASHOUT FACILITY. CONTROL RUNOFF FROM STAGING AREAS WITH DIVERSION BERMS AND/OR SILT BARRIERS AND DIRECT TO A SEDIMENT BASIN OR OTHER CONTROL DEVICE WHERE POSSIBLE. CONCRETE WASHOUT MUST BE CONTAINED ONSITE.

k. REMOVE ALL TEMPORARY EROSION CONTROL MEASURES AND SITE WASTE PRIOR TO FILING OF THE "NOTICE OF DISCONTINUATION".

GRADING PLAN GENERAL NOTES

A. UTILITY WARNING: THE UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND/ OR RECORDS OBTAINED. THE SURVEYOR MAKES NO GUARANTEE THAT THE UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEY FURTHER DOES NOT WARRANT THAT THE UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED.

B. PROTECT EXISTING UTILITIES FROM CONSTRUCTION DAMAGE. ANY DAMAGE THAT OCCURS SHALL BE REPAIRED BY THE CONTRACTOR TO THE OWNERS SPECIFICATIONS WITHOUT ADDITIONAL COMPENSATION.

C. GRADES SHOWN ARE FINISHED GRADE AND/OR TOP OF PAVING SLAB (GUTTER), UNLESS OTHERWISE NOTED.

D. CONTRACTOR SHALL PROVIDE SILT FENCE AROUND ALL STORM INTAKES AND WHERE SHOWN ON THE PLAN. SILT FENCE AROUND STORM INTAKES SHALL BE MAINTAINED UNTIL PAVING AND SEEDING/ SODDING ARE COMPLETE. SEDIMENT BASKETS SHALL BE PROVIDED ONCE PAVING IS COMPLETE

E. CONTRACTOR TO STRIP AND STOCKPILE TOPSOIL FROM ALL AREAS TO BE CUT OR FILLED. RESPREAD TO MINIMUM 6" DEPTH TO FINISH GRADES.

F. THE CONTRACTOR IS RESPONSIBLE FOR CLEANING DIRT AND DEBRIS FROM NEIGHBORING STREETS, DRIVEWAYS, AND SIDEWALKS CAUSED BY CONSTRUCTION ACTIVITIES.

G. CONTRACTOR TO REMOVE ANY SEDIMENT FROM BASIN ACCUMULATED DURING CONSTRUCTION AND REGRADE BASIN TO FINISH DESIGN GRADES PRIOR TO SEEDING.

STORMWATER MANAGEMENT QUANTITIES

SILT FENCE	1340 LF
EXISTING TEMPORARY SEDIMENT RISER	1 EA
SEDIMENT BASKETS	13 EA
SOD,SEEDING, FERTILIZING & MULCHING	4.22 AC
TYPE 1 PERMANENT LAWN MIXTURE	0.72 AC
SOD	3.50 AC

0 50
SCALE (FEET)

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Project No: 115.0886 Sheet 7 of 10

COVE AT KETTLESTONE APARTMENTS

EROSION AND SEDIMENT CONTROL PLAN

WAUKEE, IA

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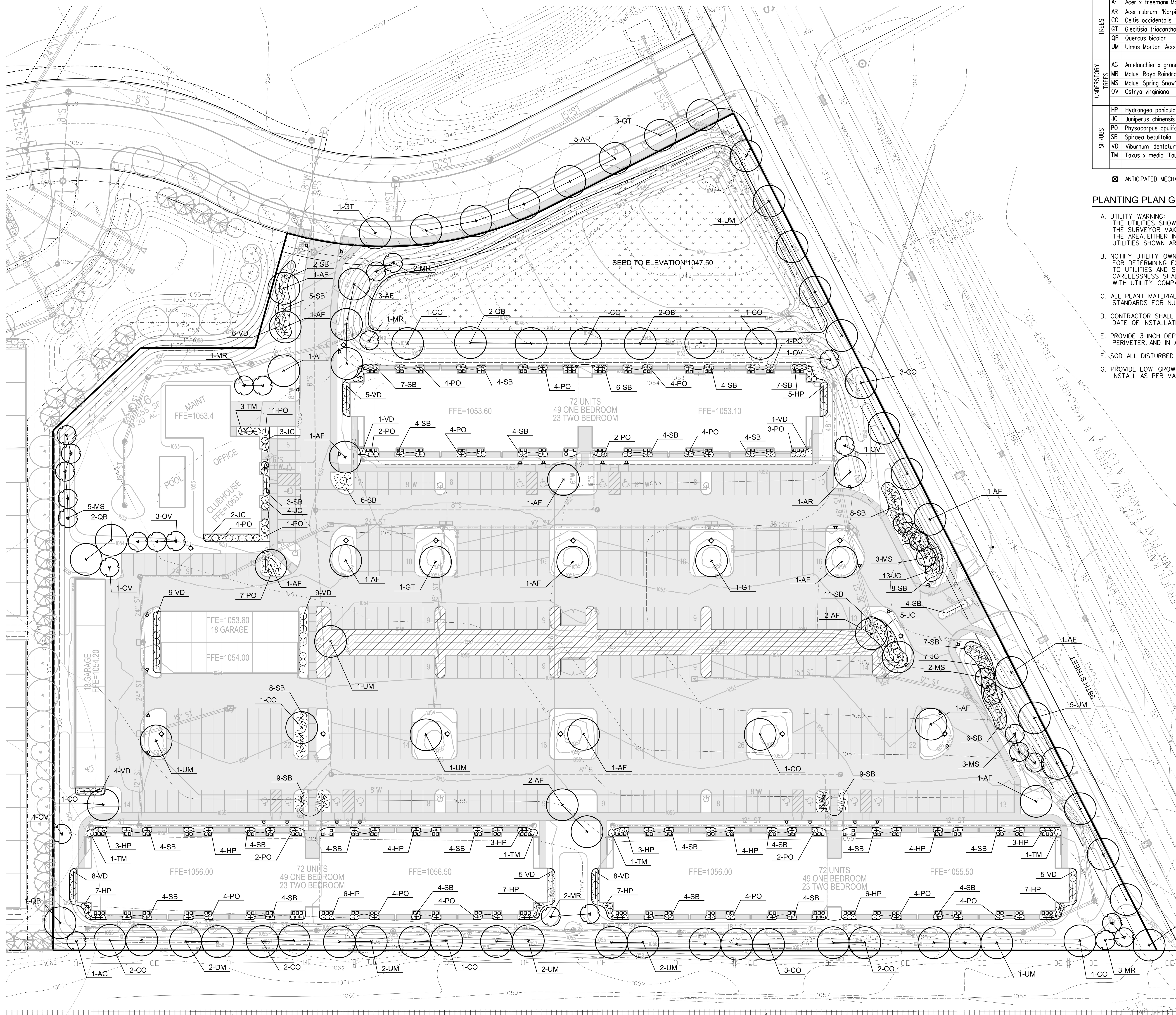
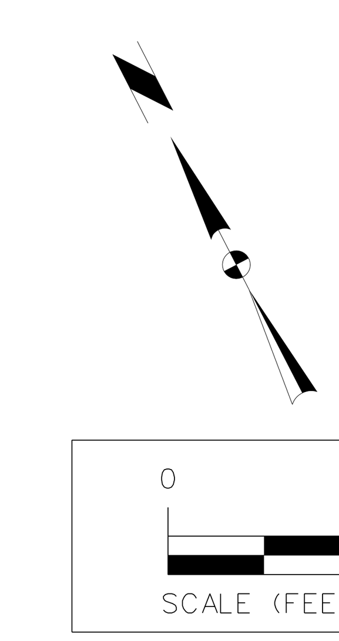




PLANT SCHEDULE

	KEY	BOTANICAL NAME	COMMON NAME	SIZE	COMMENTS
TREES	AF	Acer x freemanii 'Marmo'	MARMO MAPLE	2"	B&B
	AR	Acer rubrum 'Karpick'	KARPICK RED MAPLE	2"	B&B
	CO	Celtis occidentalis 'Prairie Pride'	PRAIRIE PRIDE HACKBERRY	2"	B&B
	GT	Gleditsia triacanthos var. inermis 'Skyline'	SKYLINE HONEYLOCUST	2"	B&B
	QB	Quercus bicolor	SWAMP WHITE OAK	2"	B&B
	UM	Ulmus Morton 'Accolade'	ACCOLADE ELM	2"	B&B
UNDERSTORY TREES	AG	Amelanchier x grandiflora 'Autumn Brilliance'	AUTUMN BRILLANCE SERVICEBERRY	6' HT.	B&B, MULTI-STEM
	MR	Malus 'Royal Raindrops'	ROYAL RAINDROPS CRABAPPLE	1-1/2"	B&B
	MS	Malus 'Spring Snow'	SPRING SNOW CRABAPPLE	1-1/2"	B&B
	OV	Ostrya virginiana	EASTERN HOP HORNBEAM	1-1/2"	B&B
SHRUBS	HP	Hydrangea paniculata 'Jane'	LITTLE LIME HYDRANGEA	24" Ht.	CONT. (4' O.C.)
	JC	Juniperus chinensis 'Daub's Frosted'	DAUB'S FROSTED JUNIPER	12" Ht.	CONT. (6' O.C.)
	PO	Physocarpus opulifolius 'Donna May'	LITTLE DEVIL NINEBARK	24" HT.	CONT. (4' O.C.)
	SB	Spiraea betulifolia 'Tor'	TOR BIRCHLEAF SPIREA	24" Ht.	CONT. (4' O.C.)
	VD	Viburnum dentatum 'Christom'	BLUE MUFFIN VIBURNUM	36" Ht.	CONT. (6' O.C.)
	TM	Taxus x media 'Taunton'	TAUNTON YEW	24" Ht.	CONT. (6' O.C.)

⊠ ANTICIPATED MECHANICAL UNIT LOCATIONS.

PLANTING PLAN GENERAL NOTES

A. UTILITY WARNING:
THE UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND/OR RECORDS OBTAINED. THE SURVEYOR MAKES NO GUARANTEE THAT THE UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEY FURTHER DOES NOT WARRANT THAT THE UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED.

B. NOTIFY UTILITY OWNERS PRIOR TO BEGINNING ANY CONSTRUCTION. CONTRACTOR IS RESPONSIBLE FOR DETERMINING EXISTENCE, EXACT LOCATION AND DEPTH OF ALL UTILITIES. AVOID DAMAGE TO UTILITIES AND SERVICES DURING CONSTRUCTION. ANY DAMAGE DUE TO THE CONTRACTOR'S CARELESSNESS SHALL BE CORRECTED AT THE CONTRACTOR'S EXPENSE. COORDINATE AND COOPERATE WITH UTILITY COMPANIES DURING CONSTRUCTION.

C. ALL PLANT MATERIAL SHALL AT LEAST MEET MINIMUM REQUIREMENTS SHOWN IN THE "AMERICAN STANDARDS FOR NURSERY STOCK" (ANSI Z60.1-LATEST EDITION).

D. CONTRACTOR SHALL GUARANTEE ALL PLANT MATERIAL FOR A PERIOD OF ONE YEAR FROM DATE OF INSTALLATION.

E. PROVIDE 3-INCH DEPTH SHREDDED HARDWOOD MULCH AROUND ALL PLANTINGS TO A MIN. 3-FOOT PERIMETER, AND IN ALL AREAS INDICATED ON PLAN.

F. SOD ALL DISTURBED AREAS UNLESS NOTED OTHERWISE.

G. PROVIDE LOW GROW GRASS MIXTURE AS SUPPLIED BY UNITED SEEDS INC., DES MOINES, IA. 515-282-1750. INSTALL AS PER MANUFACTURER'S RECOMMENDATIONS. INSTALL IN LOCATIONS INDICATED ON PLAN.

LANDSCAPE REQUIREMENTS AND CALCULATIONS

(LANDSCAPE CALCULATIONS BASED UPON CITY OF WAUKEE ZONING CODE REQUIREMENTS AND THE KETTLESTONE DESIGN GUIDELINES PUD)

15% OPEN SPACE REQUIRED
400,855 SF (TOTAL LOT) x 15% = 60,128.25 SF REQUIRED (164,127 SF PROVIDED - 40.9%)

1.0 OVERSTORY TREES, 0.5 UNDERSTORY TREES, AND 2.0 SHRUBS PER 1,000 SF OF REQUIRED OPEN SPACE.

60,128/1,000 = 60.124
1.0 x 60.128 = 60.124 (61 OVERSTORY TREES PROVIDED)
0.5 x 60.128 = 30.06 (31 UNDERSTORY TREES PROVIDED)
2.0 x 60.128 = 120.24 (121 SHRUBS PROVIDED)

FOUNDATION PLANTINGS:
FOUNDATION PLANTINGS ARE REQUIRED AT THE BASE OF ALL BUILDINGS

BUFFER REQUIREMENT:
THERE ARE NO BUFFER REQUIREMENTS

STREET TREE REQUIREMENT:
1 OVERSTORY TREE PER 40 LF OF FRONTAGE
(24 OVERSTORY TREES PROVIDED)

TYPE 1 PERMANENT LAWN SEED MIX

LOW GROW GRASS MIXTURE

APPROXIMATE LOCATION OF PROPOSED MECHANICAL UNITS

MARK	REVISION	DATE	BY
2	REVISED AS PER CITY COMMENTS	01/28/16	JWM
1	REVISED AS PER CITY COMMENTS	12/23/15	JWM

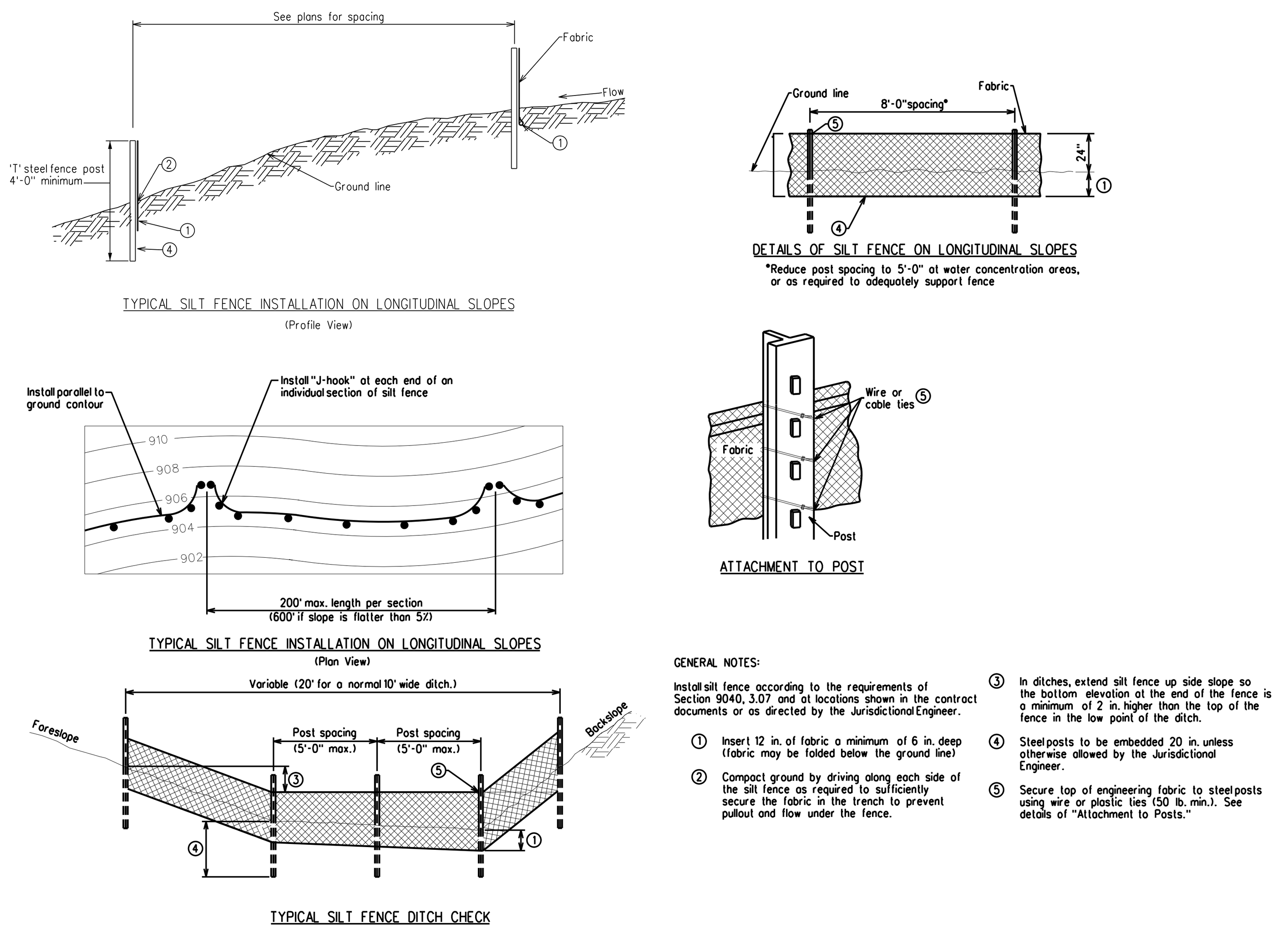
Engineer: EDC | Checked By: EDC | Scale: 1"= 40'
Technician: JWM | Date: 11-18-15 | Field Bk: | Pg:
Project No: 115.0886 | Sheet 8 of 10

COVE AT KETTLESTONE APARTMENTS

PLANTING PLAN

WAUKEE, IA

SNYDER & ASSOCIATES, INC.
2727 S.W. SNYDER BLVD.
ANKENY, IOWA 50023
515-964-2020 | www.snyder-associates.com



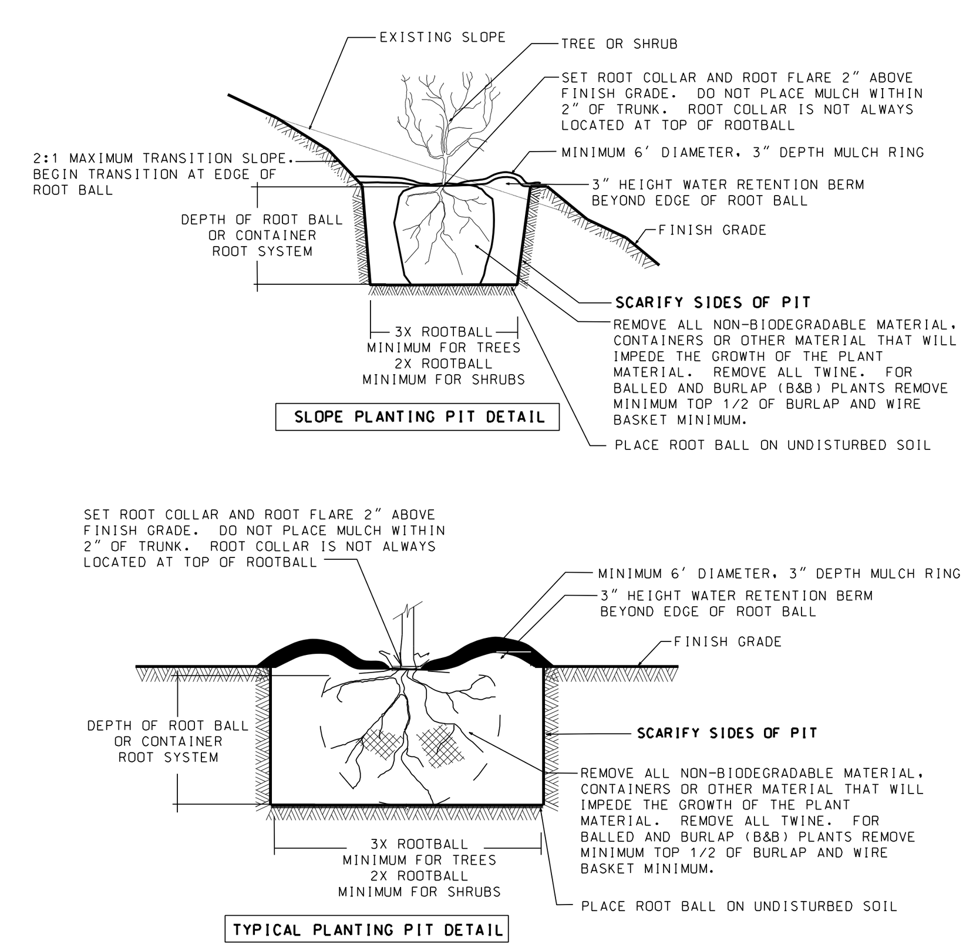
GENERAL NOTES:

Install silt fence according to the requirements of Section 9040, 3.07 and at locations shown in the contract documents or as directed by the Jurisdictional Engineer.

1. Insert 12 in. of fabric a minimum of 6 in. deep (fabric may be folded below the ground line)
2. Compact ground by driving along each side of the silt fence as required to sufficiently secure the fabric in the trench to prevent pullout and flow under the fence.
3. In ditches, extend silt fence up side slope so the bottom elevation at the end of the fence is a minimum of 2 in. higher than the top of the fence in the low point of the ditch.
4. Steel posts to be embedded 20 in. unless otherwise allowed by the Jurisdictional Engineer.
5. Secure top of engineering fabric to steel posts using wire or plastic ties (50 lb. min.). See details of "Attachment to Posts."

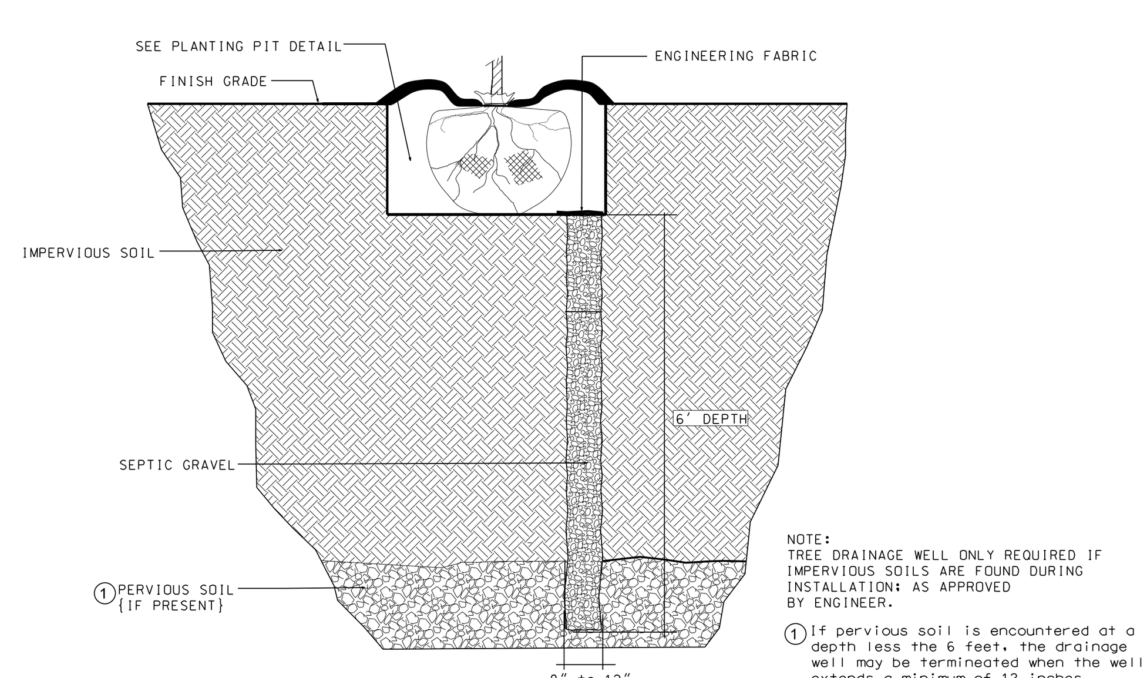
1/9 SILT FENCE DETAIL

NO SCALE



2/9 PLANTING PIT DETAILS

NO SCALE

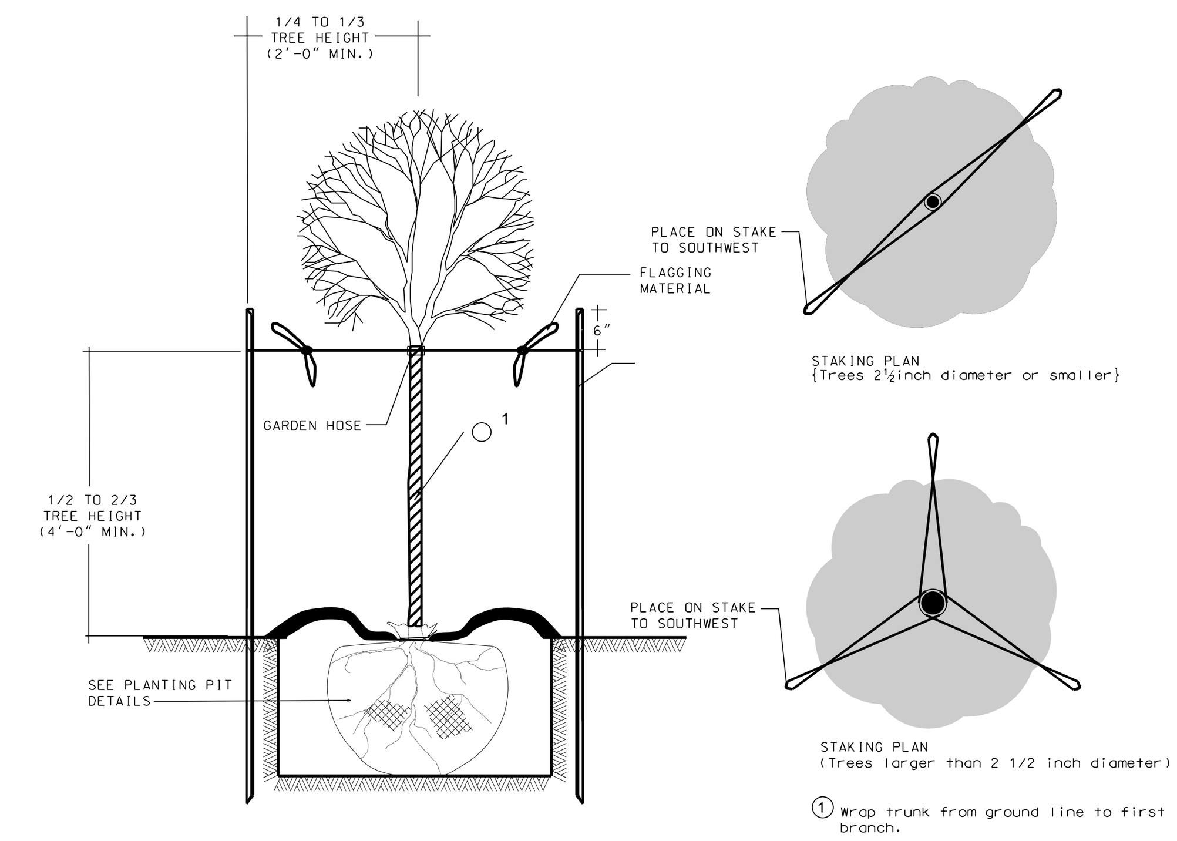


NOTE: TREE DRAINAGE WELL ONLY REQUIRED IF IMPERVIOUS SOILS ARE FOUND DURING INSTALLATIONS AS APPROVED BY ENGINEER.

1. If pervious soil is encountered at a depth less the 6 feet, the drainage well may be terminated when the well extends a minimum of 12 inches into the pervious soil layer.

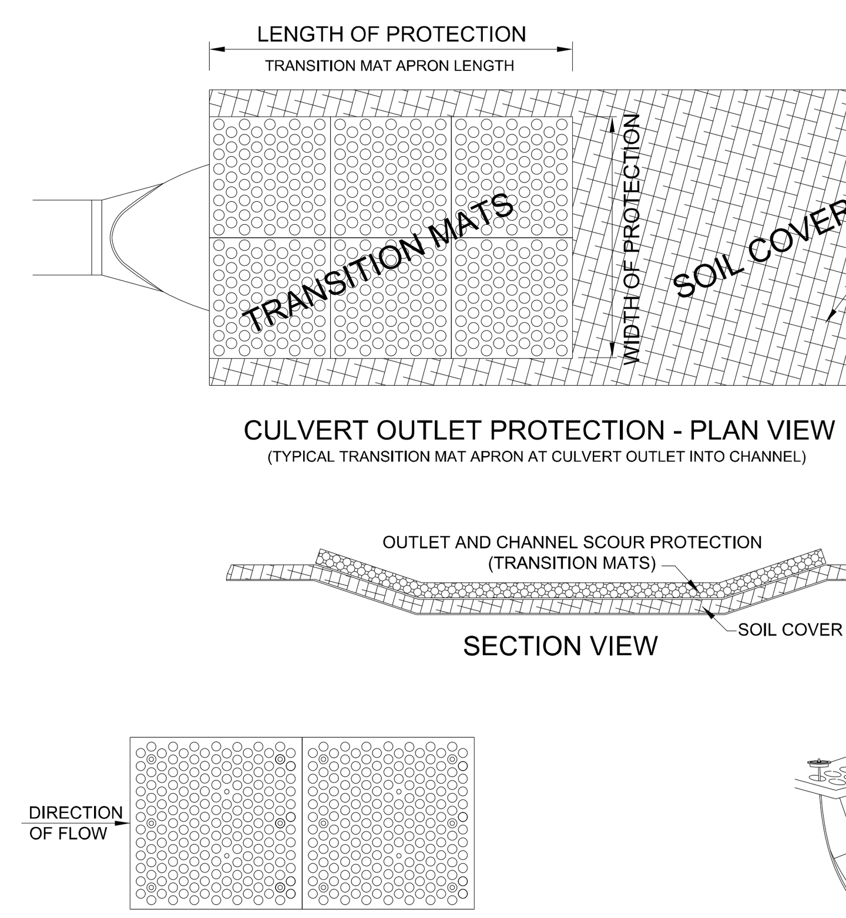
3/9 TREE DRAINAGE WELL DETAIL

NO SCALE



4/9 DECIDUOUS TREE STAKING DETAIL

NO SCALE



RECOMMENDED WIDTH OF PROTECTION: BOTTOM WIDTH OF CHANNEL (W) AND BOTH SIDE SLOPES UP TO A DEPTH AT LEAST HALF THE CULVERT DIAMETER.

PROTECT BARE/DISTURBED DOWNSTREAM SOILS FROM EROSION WITH APPROPRIATE SOIL COVER

USE NORMAL-DEPTH CALCULATOR TO COMPUTE FOR DOWNSTREAM PROTECTION

ANCHOR PATTERN

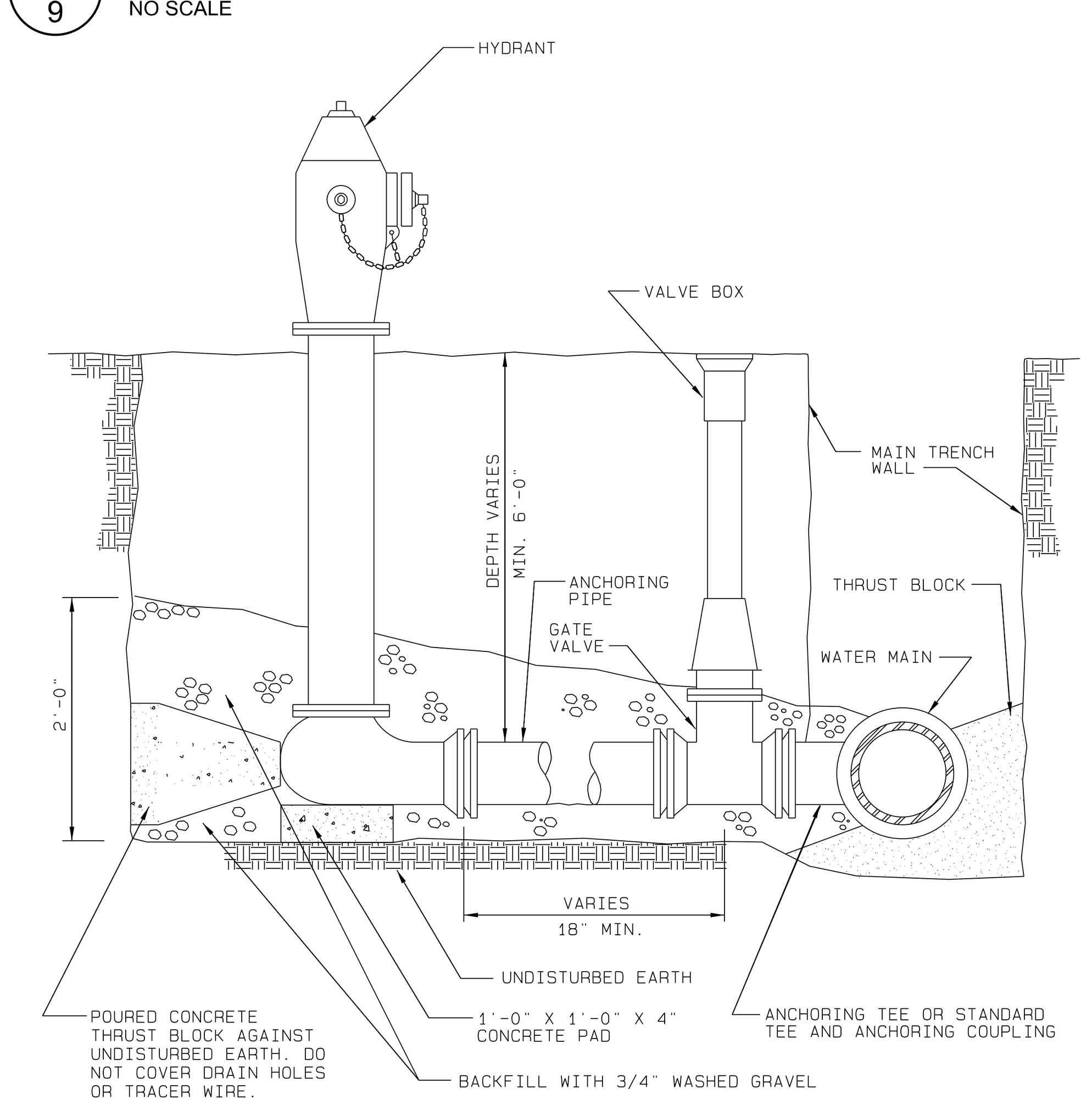
ABUT TRANSITION MATS TO END OF CULVERT OR CULVERT APRON.
TOP OF SCOURSTOP MATS SHOULD BE FLUSH WITH OR BELOW CULVERT.
ADJACENT MATS ABUT TOGETHER LATERALLY AND LONGITUDINALLY.
USE A MINIMUM OF 8 ANCHORS PER MAT.
EXTRA ANCHORS AS NEEDED FOR LOOSE OR WET SOILS.
EXTRA ANCHORS AS NEEDED FOR UNEVEN SOIL SURFACE.

ANCHOR ILLUSTRATION

DRIVE ANCHOR INTO FIRM SOIL, PULL UP ON STRAP TO SET BULLET.
MINIMUM DEPTH 12" IN COMPACTED, COHESIVE SOIL.
MINIMUM DEPTH 24" IN LOOSE, SANDY OR WET SOIL.
EXTRA ANCHORS AS NEEDED TO SECURE MAT TIGHTLY OVER SOIL COVER.

5/9 FTM/TRM DETAIL

NO SCALE

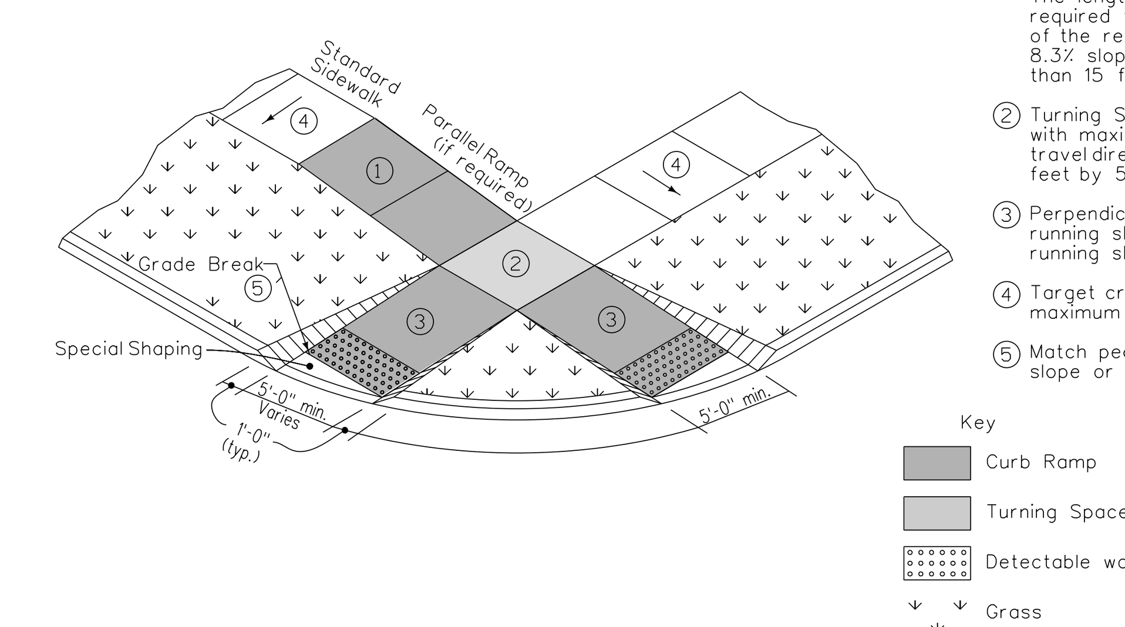


NOTES

1. MINIMUM SIZE FOR PIPING. VALVES AND FITTINGS FROM WATER MAIN TO HYDRANT INLET: 6".
2. PROVIDE TRACER WIRE AND TRACER WIRE STATION.
3. WRAP HYDRANT, PIPE AND FITTINGS WITH POLYETHYLENE ENCASEMENT.
4. INSTALL STORZ FITTINGS ON ALL HYDRANT ASSEMBLIES.

6/9 FIRE HYDRANT ASSEMBLY

NO SCALE

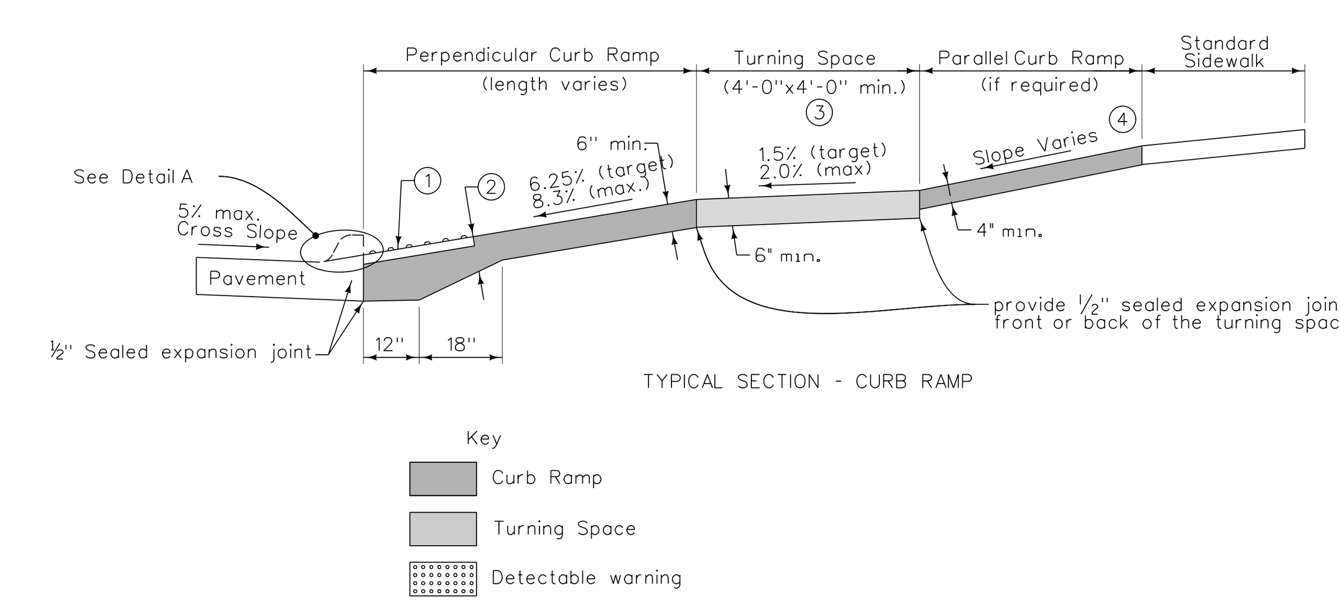


1. Parallel Curb Ramp: If normal sidewalk elevation cannot be achieved with the perpendicular ramp between the street and landing due to limited ramp length, provide a parallel ramp to make up the elevation difference between the landing and the standard sidewalk.

   The length of the parallel ramp is not required to exceed 15 feet, regardless of the resulting slope. Do not exceed 8.3% slope for parallel ramps shorter than 15 feet.
2. Turning Space: Target slope of 1.5% with maximum slope perpendicular to the travel directions of 2.0%. Minimum 5 feet by 5 feet.
3. Perpendicular Curb Ramp: Target running slope of 6.25% with maximum running slope of 8.3%.
4. Target cross slope of 1.5% with a maximum cross slope of 2.0%.
5. Match pedestrian street crossing cross slope or flatter.

7/9 CURB RAMP FOR SIDEWALK

NO SCALE



1. Provide a minimum 2 foot width of detectable warning surfaces in the direction of pedestrian travel across the full width of the curb ramp or turning space, exclusive of curbs or flares.
2. Provide a minimum of 6 inches of concrete below the detectable warning panel.
3. Target slope of 1.5% with maximum slope perpendicular to the travel directions of 2.0%. Minimum 4 feet by 4 feet.
4. If normal sidewalk elevation cannot be achieved with the perpendicular ramp between the street and landing due to limited ramp length, provide a parallel ramp to make up the elevation difference between the landing and the standard sidewalk.

   The length of the parallel ramp is not required to exceed 15 feet, regardless of the resulting slope. Do not exceed 8.3% slope for parallel ramps shorter than 15 feet.

8/9 GENERAL SIDEWALK AND CURB RAMP DETAILS

NO SCALE

MARK	REVISION	DATE	BY
2	REVISED AS PER CITY COMMENTS	01/28/16	JWM
1	REVISED AS PER CITY COMMENTS	12/23/15	JWM

Engineer: EDC | Checked By: EDC | Scale: 1"= 1'

Technician: JWM | Date: 11-18-15 | Field Bk: | Pg:

Project No: 115.0886

Sheet 9 of 10

COVE AT KETTLESTONE APARTMENTS

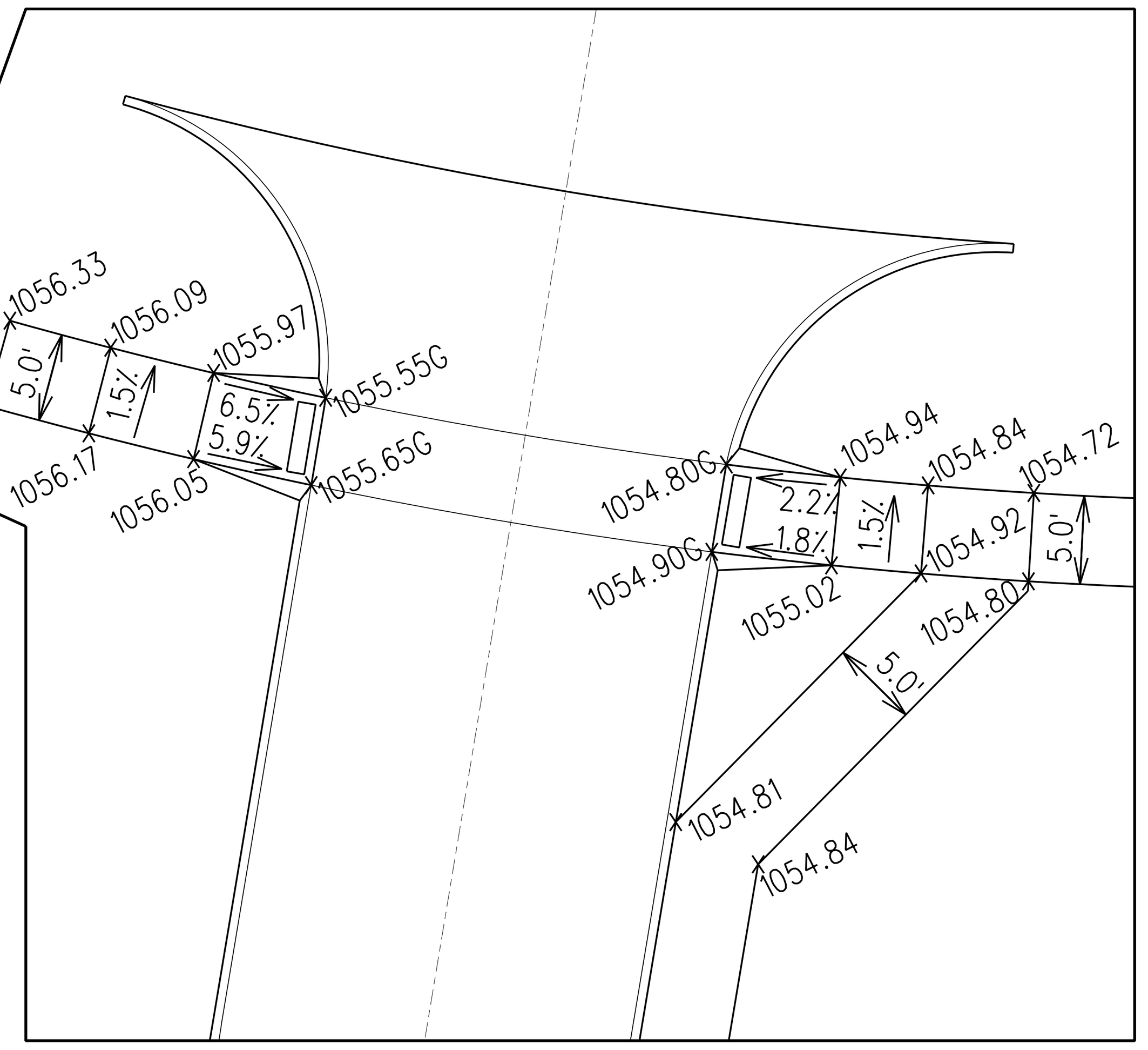
WAUKEE, IA

SITE DETAILS

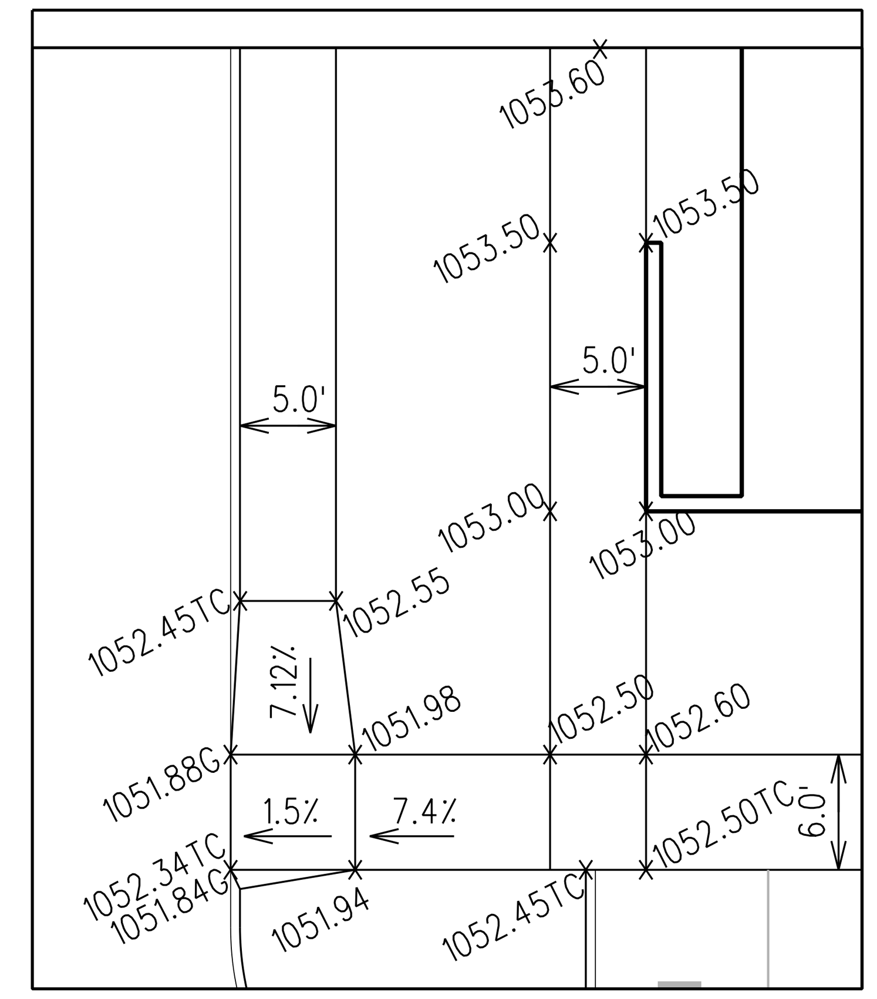
SNYDER & ASSOCIATES, INC.

2727 S.W. SNYDER BLVD.
ANKENY, IOWA 50023
515-964-2020 | www.snyder-associates.com

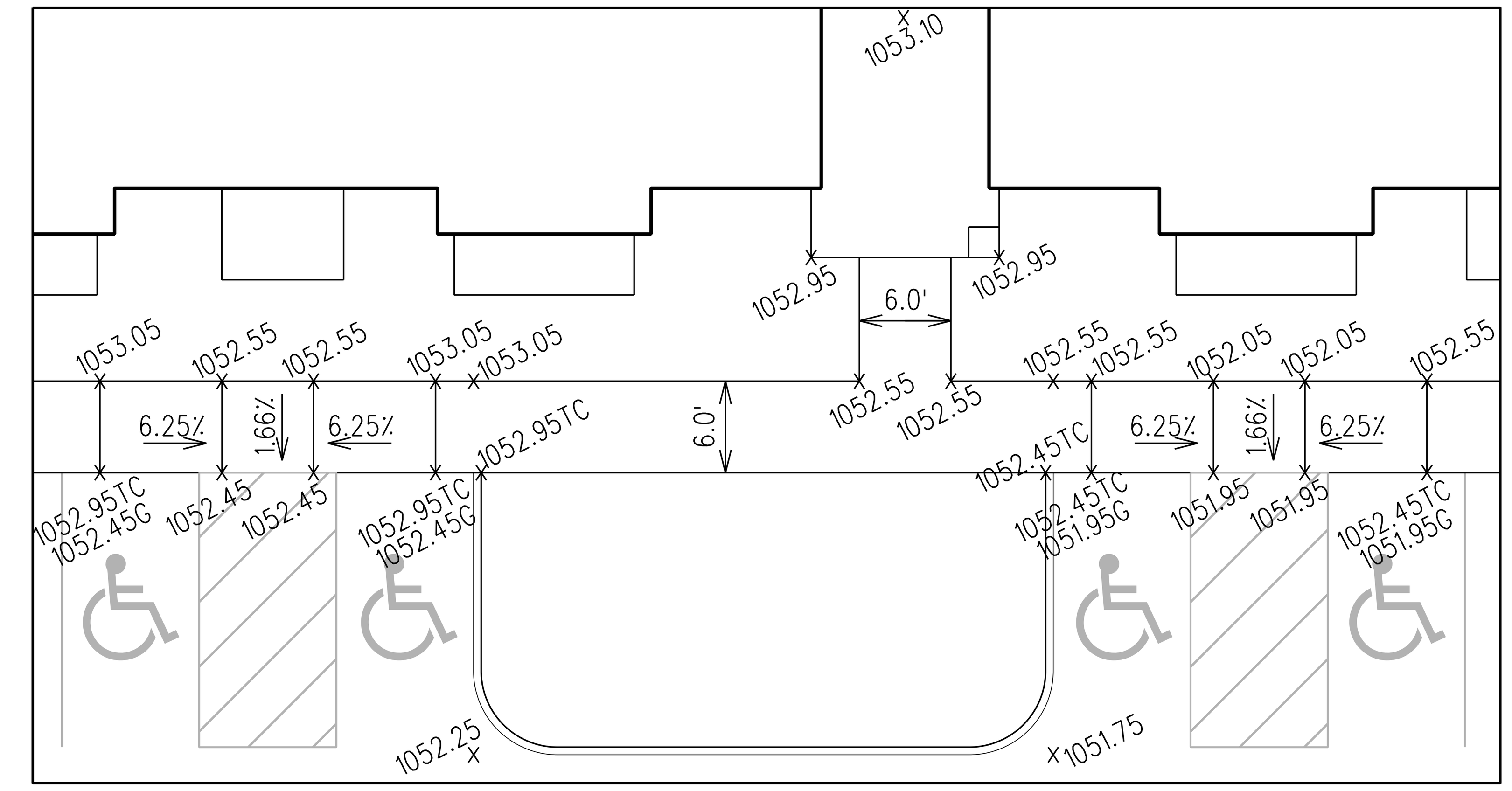
Project No: 115.0886



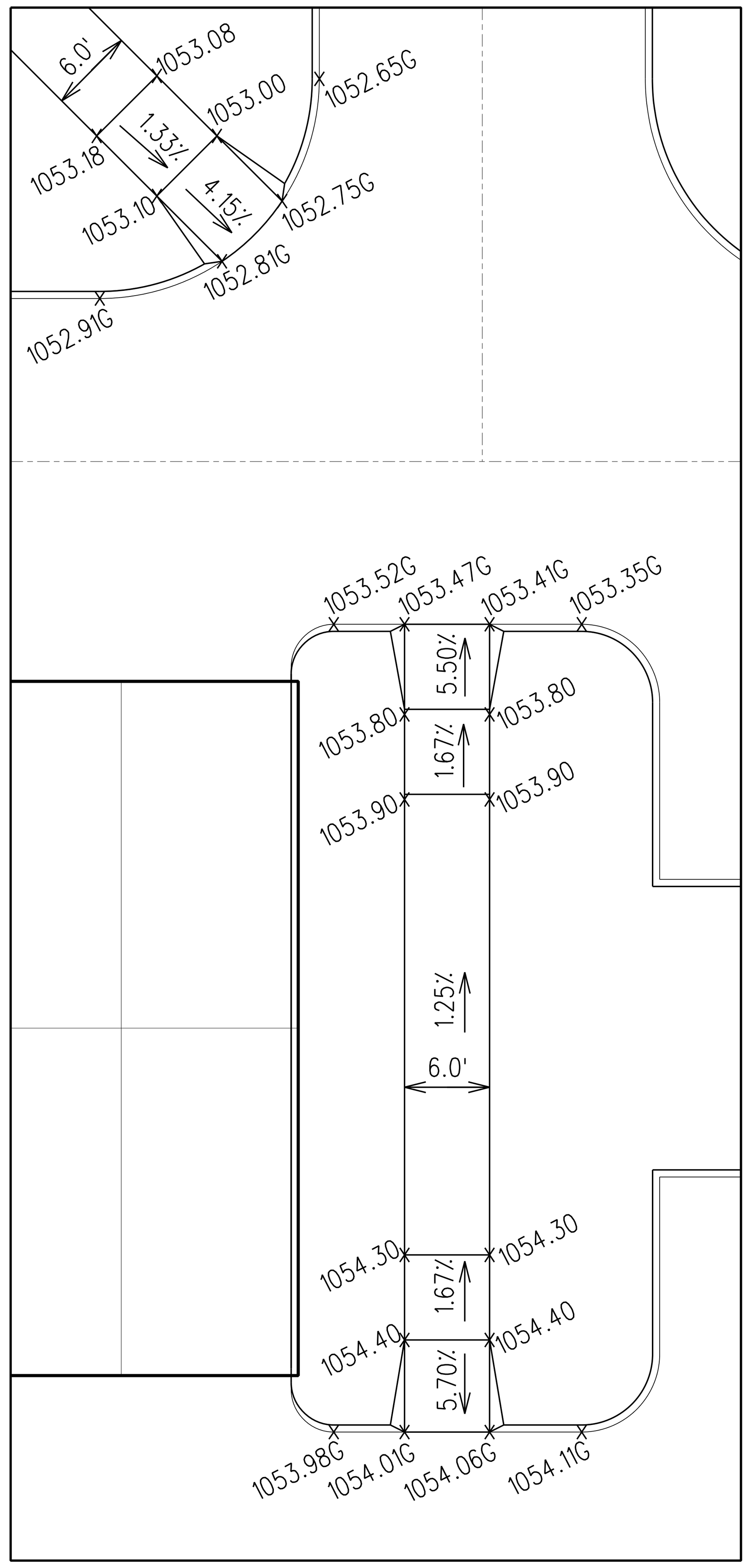
SIDEWALK RAMP AREA 8 DETAIL 1"=10'



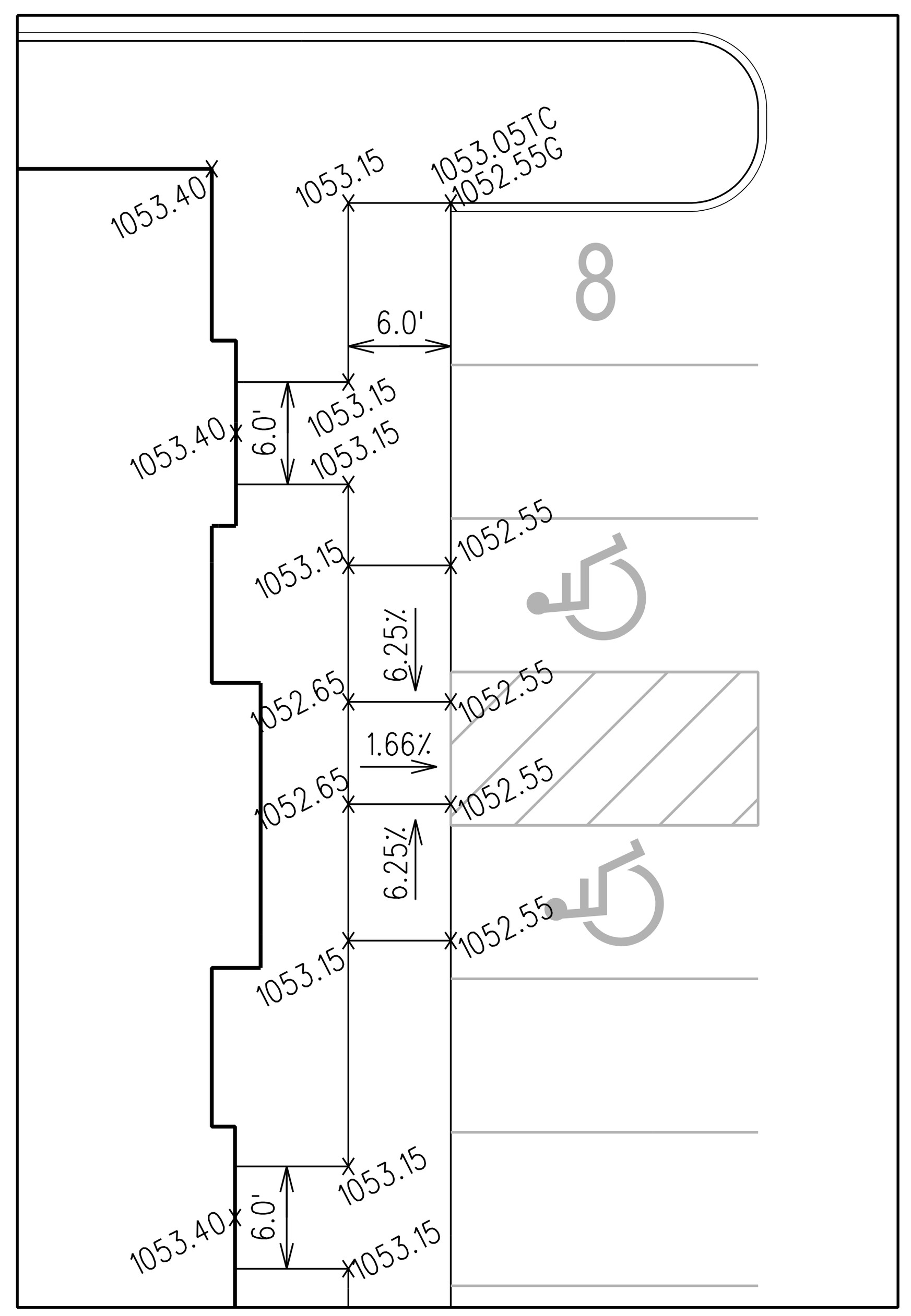
SIDEWALK RAMP AREA 6 DETAIL 1"=10'



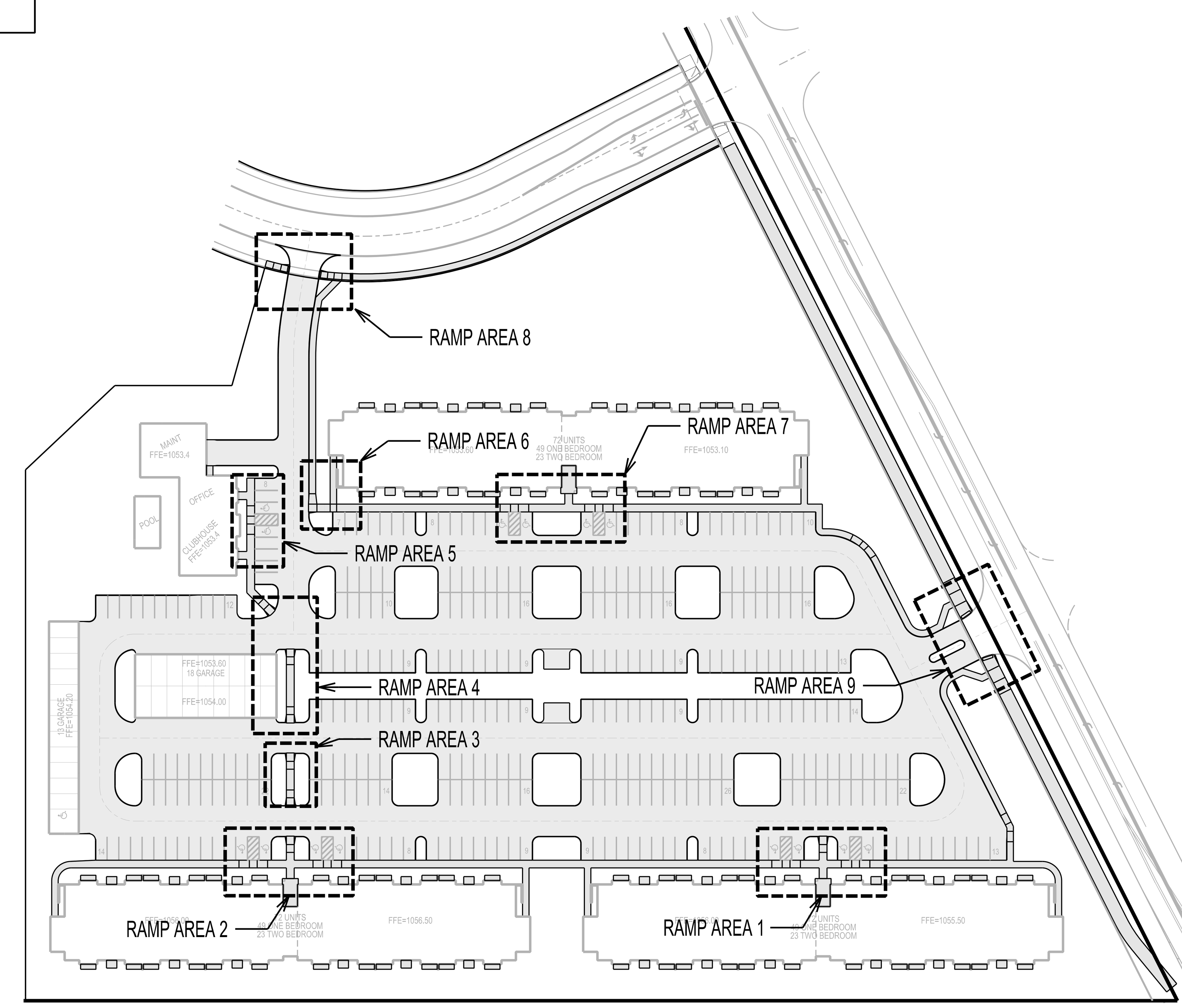
SIDEWALK RAMP AREA 7 DETAIL 1"=10'

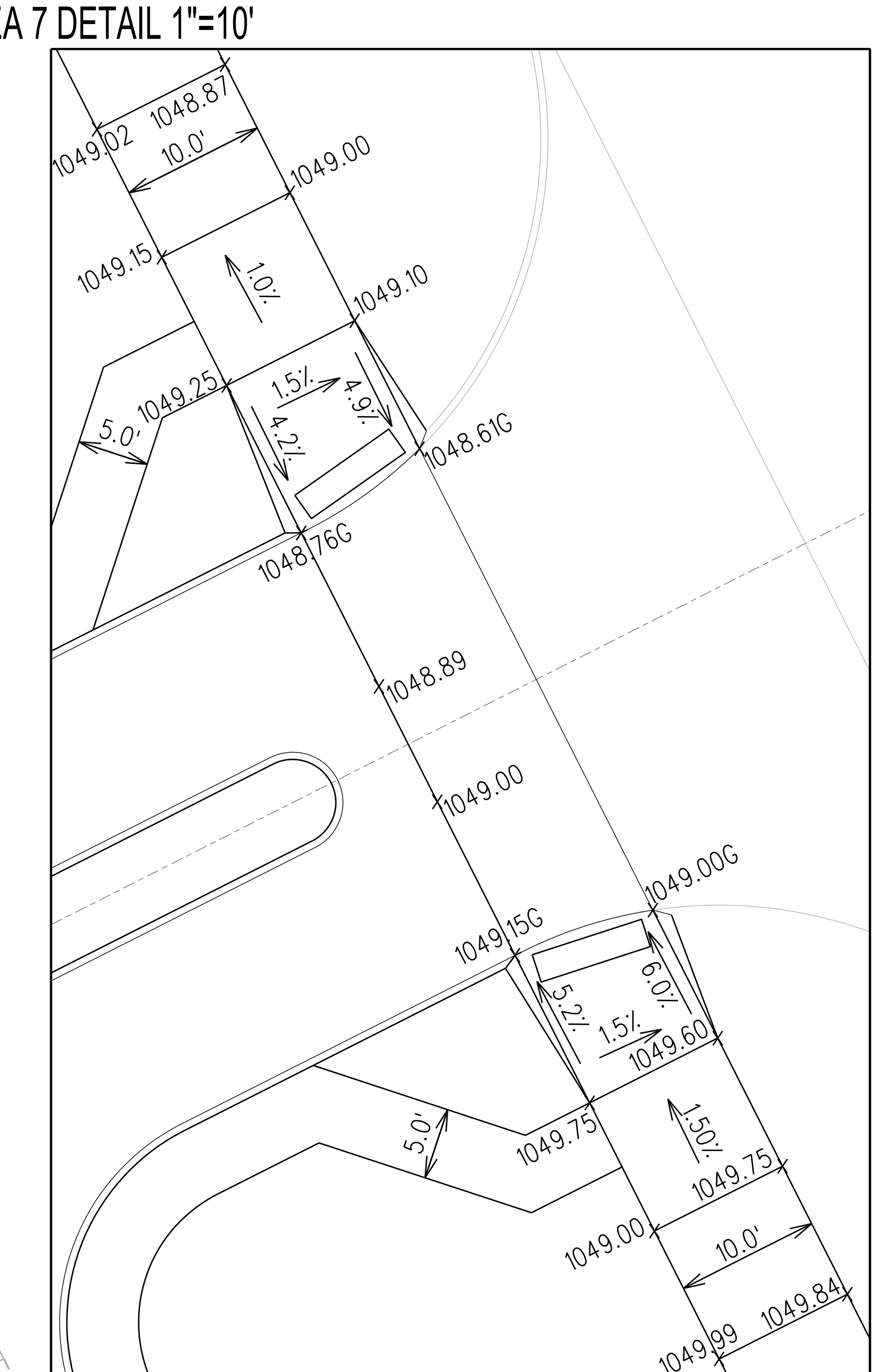


SIDEWALK RAMP AREA 4 DETAIL 1"=10'

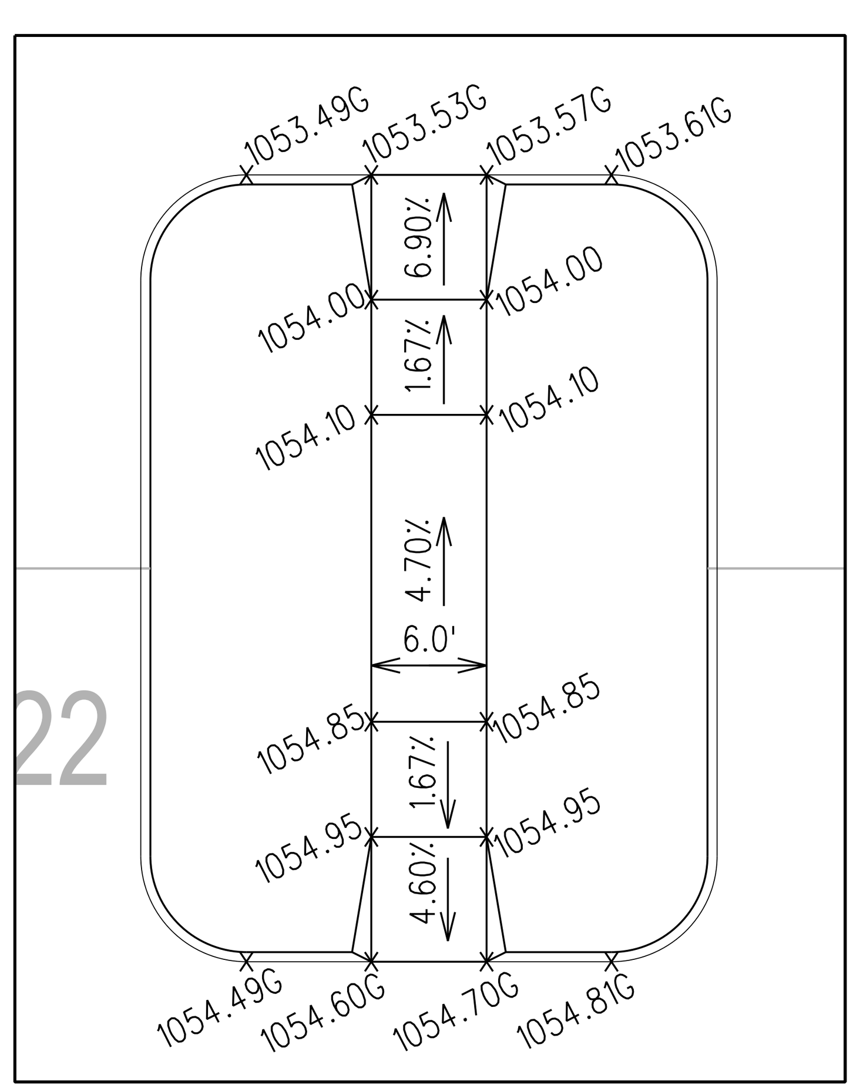


SIDEWALK RAMP AREA 5 DETAIL 1"=10'

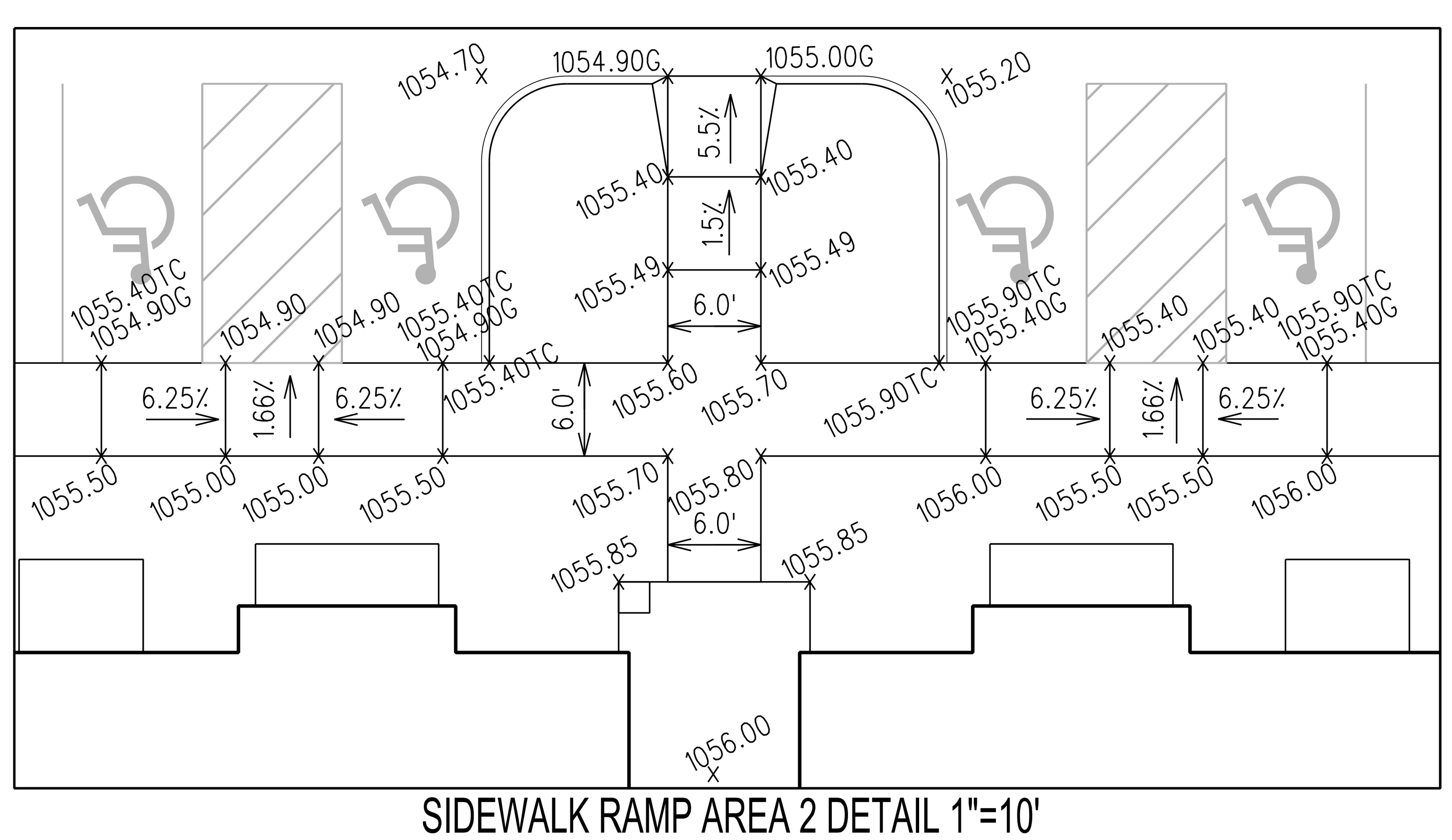




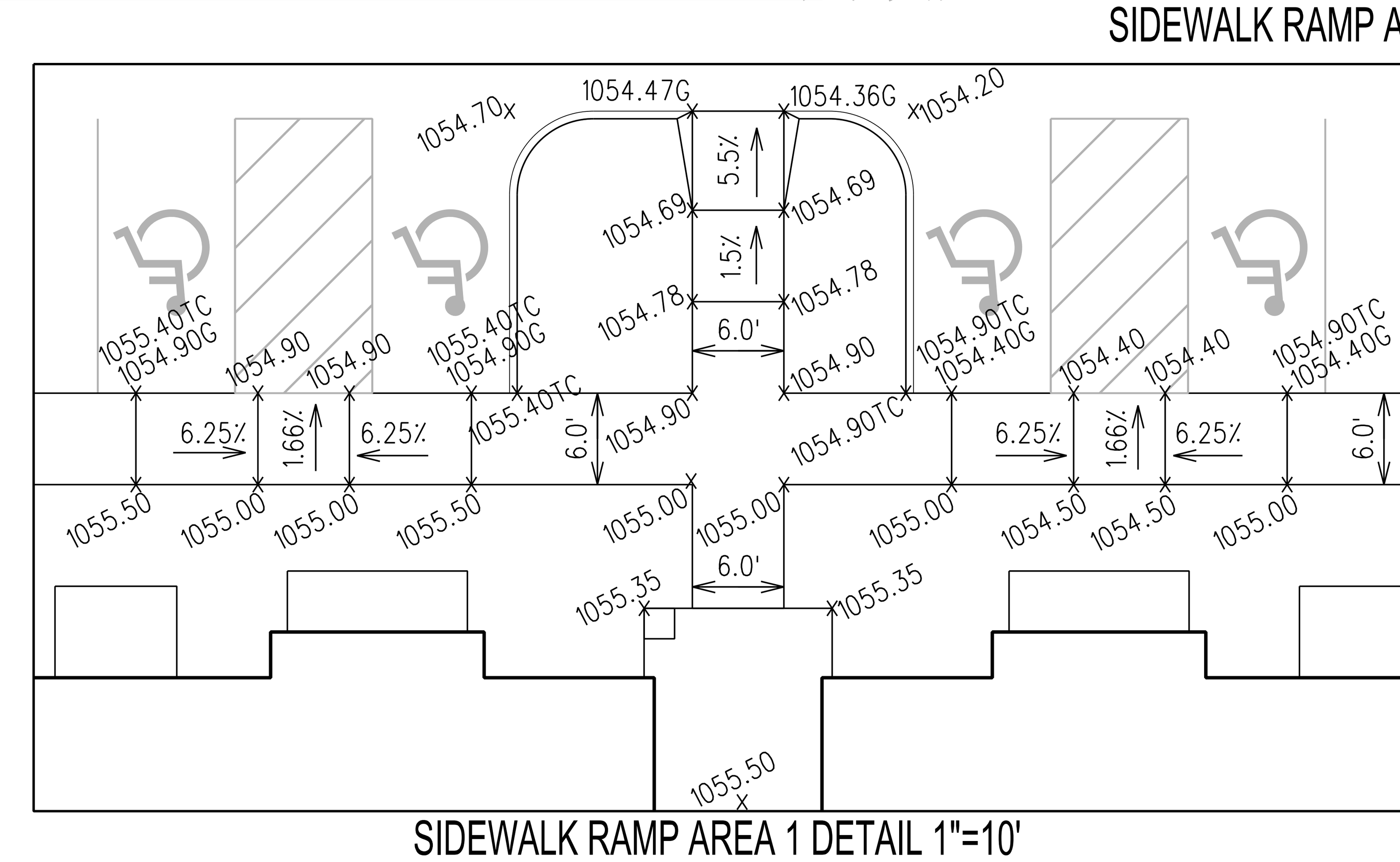
SIDEWALK RAMP AREA 9 DETAIL 1"=10'



SIDEWALK RAMP AREA 3 DETAIL 1"=10'



SIDEWALK RAMP AREA 2 DETAIL 1"=10'



SIDEWALK RAMP AREA 1 DETAIL 1"=10'

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1	REVISED AS PER CITY COMMENTS	12/23/15	JWM

Engineer: EDC Checked By: EDC Scale: 1"= 10'
Technician: JWM Date: 11-18-15 Field Bk: Pg:
Project No: 115.0886

COVE AT KETTLESTONE APARTMENTS

SIDEWALK RAMP DETAILS

WAUKEE, IA

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